

WorldCom and Intermedia. This allows ELI to terminate traffic in every major market, providing the connectivity corporate customers need. As of the first quarter, ELI had 1,358 network nodes in service, and was growing 200-300 nodes per quarter.

The company is also developing its ATM capabilities and plans to provide service to customers by the end of the second quarter. Like GST, Intermedia and e.spire, ELI plans to use ATM to deliver a bundled package of telecommunications services over one high-performance connection.

New markets will be entered first with a data product. Denver, Dallas, St. Louis and Chicago are likely candidates for further expansion. Long-haul capacity required to provide connectivity to these markets may be secured through fiber swaps with other carriers with excess capacity. ELI's networks in the Northwest provide an attractive currency it hopes to leverage in expansion.

ELI has also developed its own, high-quality regional Internet backbone. Peered with UUNet, Sprint and MCI, the company's Internet service consistently receives high ratings for speed and quality.

#### Management assessment

Three of the top four officers of the company are Citizens Utilities executives. The chairman of the board of ELI is Leonard Tow, who also serves as chairman, CEO and CFO at Citizens Utilities. He has also been a director, CEO and CFO of Century Communications since 1973.

Daryl Ferguson has been vice chairman of the board and chief executive officer of ELI since October 1997. Mr. Ferguson joined Citizens in 1989 as vice president, administration. He has served as president and chief operating officer at Citizens since 1990, and is on the board of Centennial Cellular.

The CFO at ELI is Robert DeSantis. Mr. DeSantis is also the treasurer of Citizens, a position he has held since 1991. Prior to this he was assistant treasurer of Citizens.

Michael Sharkey joined the company as its president in 1994. In 1997, he took responsibility as chief operating officer. Prior to joining ELI, Mr. Sharkey was vice president and general manager at Mobile Media, Inc. for five years and spent 21 years with New Jersey Bell and AT&T in various technical and sales and marketing roles.

Todd Hanson joined the company as vice president of engineering in 1995. Mr. Hanson has valuable experience

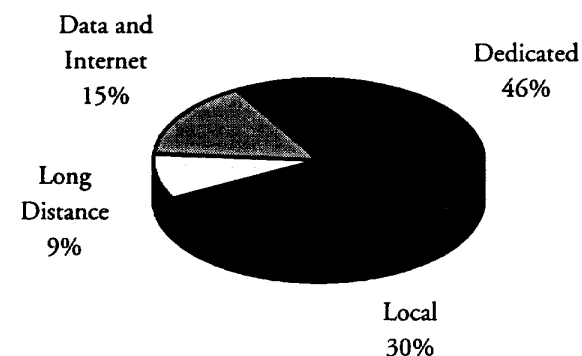
in competitive local telephony, serving from 1993 to 1995 as vice president of network engineering at MFS. Mr. Hanson is in charge of the company's network strategy.

#### Financial assessment

ELI has doubled revenue through internal growth every year since 1993. The fastest-growing segment is local service, which grew to \$6.0 million in the first quarter of 1998 from \$1.2 million in the first quarter of 1997. Access line growth, however, has not been consistent. In the first quarter of 1998, the company added 6,942 lines, versus 10,328 lines in the fourth quarter of 1997. Management attributed this to problems with its internal provisioning system. On July 13, the company announced that these problems would continue for the next two to three quarters, resulting in lower-than-expected revenues for 1998.

Figure 50

#### ELI's revenue mix, 1Q98



Source: PaineWebber and company data.

The rollout of switched service continues. In May, ELI activated Class 5 switches in Phoenix and Boise, bringing its total number of switches in service to seven and markets in operation to six. In Boise, the company has constructed a 32-mile ring to give it a large addressable market. In Phoenix, ELI has partnered with the Salt River Project, the area's largest electricity and water supplier, which gives the company access to one of the largest fiber optic networks in the region.

We expect the company's provisioning rate to improve slowly throughout 1998 and estimate ELI will end the year with just over 75,000 lines in service. With estimated revenue per line projected at just under \$50 per month, we expect local service revenue of \$32 million for the year.

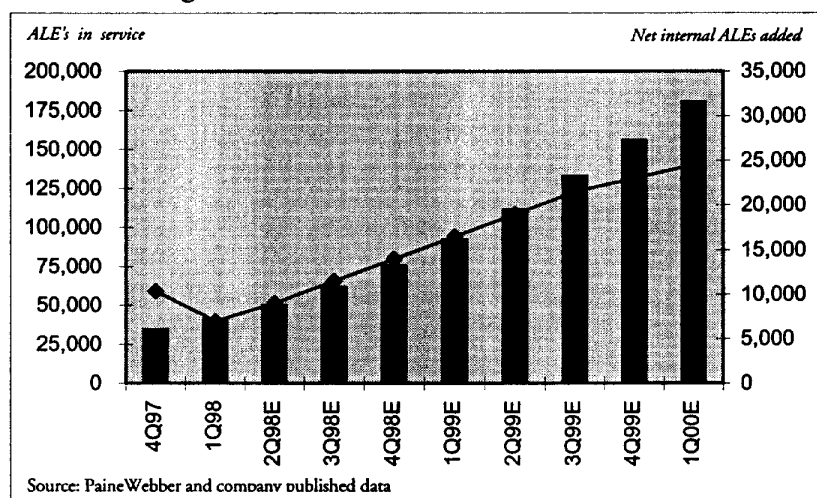
Table 3

**ELI projected access line growth**

	1Q98	2Q98E	3Q98E	4Q98E	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
Access lines (bop)	34,328	41,270	50,270	61,770	34,328	75,770	155,770	285,770	435,770	600,770	770,770	940,770
Net adds	6,942	9,000	11,500	14,000	41,442	80,000	130,000	150,000	165,000	170,000	170,000	170,000
Access lines (eop)	41,270	50,270	61,770	75,770	75,770	155,770	285,770	435,770	600,770	770,770	940,770	1,110,770
% growth						105.6%	83.5%	52.5%	37.9%	28.3%	22.1%	18.1%
Average access lines	37,799	45,770	56,020	68,770	55,049	115,770	220,770	360,770	518,270	685,770	855,770	1,025,770

Source: PaineWebber estimates and company data.

Chart 3

**ELI access line growth and estimates***Long-distance*

In the first quarter, long-distance revenues were affected by the company's efforts to pare down its wholesale inter-exchange business, which currently represents approximately 60% of total long-distance revenues. Wholesale long-distance is no longer of strategic importance to the company, as it produces low margins with high churn. Management expects wholesale long-distance revenues to continue to fall throughout 1998 and 1999, putting pressure on long-distance revenue growth.

Retail long-distance revenues grew at a quarterly rate of 7% in the first quarter. We expect this growth rate to continue throughout the year, compensating for weakness in wholesale. As a result, we project only a slight quarter-over-quarter improvement in ELI's interexchange business in 1998 but expect growth to reemerge in 1999.

*Dedicated*

Dedicated service revenues, which include both local and long-haul connectivity, have typically accounted for more than 50% of total revenues. In the first quarter, revenues from dedicated services fell, as the company lost \$800,000 in revenue from IXC Communications, an inter-exchange

carrier that recently turned up portions of its own network. While growth in local and enhanced services will make it a smaller portion of revenues going forward, we expect this category to continue to grow as the company brings more long-haul capacity on line.

*Data and Internet*

Enhanced services, which include Internet access and frame relay service, accounted for 15.5% of revenues in the first quarter and grew at an annual rate of 82%. A new sales force is being formed to focus solely on data products. We expect growth of better than 10% per quarter throughout 1998 and 1999 as the company moves into new major markets with its data service products. Based on the company's extensive transport infrastructure, gross margins on data and Internet products should reach 60-70% as the product line matures.

ELI has traditionally targeted medium-sized and large data-intensive businesses and wholesale customers. While the company does not release a figure for average access lines per customer, it will not sell service to businesses requiring fewer than 50 lines. The larger customer base allows the company to better leverage its network infra-

structure and support systems, leading to higher expected gross margins than that for companies serving smaller businesses.

Wholesale sales have historically accounted for approximately half of the company's sales, but this is expected to change as the mix of switched local and long-distance service grows. Overall, we expect ELI to produce a gross margin of 19% for 1998, down from 20% in 1997, as the company works to develop new markets for voice and data. In the outer years, we expect the company's strategy to produce gross margins above 60%. Our gross margin calculations include network access and certain components of the company's reported "other operating expenses," such as engineering and sale/lease back payments on network infrastructure.

The more established markets of Portland and Seattle have been EBITDA positive since 1995. Sacramento and Salt Lake City are expected to turn positive in 1998. We are projecting the company as a whole will report positive cash flow in mid- to late 2000.

#### *Financial position*

We expect capital expenditures to run \$200-300 million per year for the next three years, forcing the company to rely on external funding for its cash requirements. The

company is currently being financed through a \$400 million revolver from Citibank guaranteed by Citizens. ELI pays fees of 0.05% and an annual guarantee fee of 3.25% to Citizens for this service. At the end of the first quarter, the company had drawn down \$100 million of this revolver and we expect it to require an additional \$250 million in 1998, leaving only \$50 million in borrowing under this facility. New financing would be required in early 1999 and it is likely management will pursue alternatives later in the year.

#### **Conclusion**

ELI appears to be shaking off its conservative past to become a more expansion-oriented player. Its extensive network infrastructure and data service capabilities give it the tools required to pursue growth effectively. However, poor execution has hurt the company's results in the past and will likely affect its performance throughout 1998.

Meanwhile, the Citizens breakup has created an overhang on the stock as investors wait for more information regarding the transaction and ELI's role within the new organization. Better visibility into the company's year and more independence from Citizens could make ELIX's valuation more attractive once these issues have been satisfactorily addressed.

Figure 51

**Electric Lightwave statement of operations**

(US\$ in millions)	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
Dedicated services	\$39.6	\$51.5	\$64.4	\$77.2	\$92.7	\$109.4	\$125.8	\$144.6
Local dial-tone	31.7	64.7	119.7	189.7	267.1	346.4	423.6	497.6
Long-distance	7.3	13.9	25.8	41.2	57.9	75.1	93.8	112.4
Enhanced service	15.0	21.6	30.6	41.9	55.4	71.9	89.9	107.9
Total Revenue	\$93.7	\$151.7	\$240.5	\$350.0	\$473.1	\$602.7	\$733.0	\$862.5
% growth	53.3%	62.0%	58.5%	45.5%	35.2%	27.4%	21.6%	17.7%
Cost of sales *	76.2	96.8	123.6	163.3	199.8	240.9	277.0	324.9
% sales	81.4%	63.8%	51.4%	46.7%	42.2%	40.0%	37.8%	37.7%
GM (est)	\$17.4	\$54.9	\$116.9	\$186.7	\$273.3	\$361.9	\$456.0	\$537.6
% sales	18.6%	36.2%	48.6%	53.3%	57.8%	60.0%	62.2%	62.3%
SG&A (est)	60.2	78.9	105.8	113.7	127.7	144.7	164.9	181.1
% sales	64.3%	52.0%	44.0%	32.5%	27.0%	24.0%	22.5%	22.0%
EBITDA	(\$42.8)	(\$24.0)	\$11.0	\$72.9	\$145.6	\$217.2	\$291.1	\$356.4
% sales	-45.7%	-15.8%	4.6%	20.8%	30.8%	36.0%	39.7%	41.3%
% growth				561.1%	99.6%	49.2%	34.0%	22.5%
D&A	22.8	42.7	62.6	82.4	102.3	117.2	132.1	147.0
EBIT	(\$65.6)	(\$66.7)	(\$51.5)	(\$9.5)	\$43.3	\$100.0	\$159.0	\$209.4
% sales	-70.1%	-44.0%	-21.4%	-2.7%	9.2%	16.6%	21.7%	24.3%
Interest expense, net	15.0	56.7	86.2	115.6	144.0	141.6	145.1	147.1
Pretax	(\$80.6)	(\$123.4)	(\$137.7)	(\$125.1)	(\$100.7)	(\$41.6)	\$13.9	\$62.4
% sales	-86.1%	-81.3%	-57.3%	-35.7%	-21.3%	-6.9%	1.9%	7.2%
Tax expense	-	-	-	-	-	-	-	-
Net loss	(\$80.6)	(\$123.4)	(\$137.7)	(\$125.1)	(\$100.7)	(\$41.6)	\$13.9	\$62.4
% sales	-86.1%	-81.3%	-57.3%	-35.7%	-21.3%	-6.9%	1.9%	7.2%
EPS - bef. charges	(\$1.62)	(\$2.36)	(\$2.59)	(\$2.30)	(\$1.82)	(\$0.74)	\$0.24	\$1.06
EPS - eff. of charges	(\$0.06)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EPS - total	(\$1.68)	(\$2.36)	(\$2.59)	(\$2.30)	(\$1.82)	(\$0.74)	\$0.24	\$1.06
Weighted Shares o/s	48.0	52.2	53.3	54.3	55.4	56.5	57.6	58.8
EBIT*(1-t)	(\$65.6)	(\$66.7)	(\$51.5)	(\$9.5)	\$43.3	\$100.0	\$159.0	\$209.4
Plus: D&A	22.8	42.7	62.6	82.4	102.3	117.2	132.1	147.0
Less: capex	259.0	200.0	200.0	200.0	200.0	150.0	150.0	150.0
Less: changes in w.c.	12.9	2.9	4.4	5.5	6.2	6.5	6.5	6.5
= Free Cash Flow	(\$314.7)	(\$226.9)	(\$193.4)	(\$132.5)	(\$60.6)	\$60.7	\$134.5	\$200.0

\* Cost of sales includes network access, engineering and payments of sale lease back obligations.

Source: PaineWebber and company published data.

Figure 52

**Electric Lightwave sources and uses of cash**

(US\$ in millions)	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
<b>USES OF FUNDS</b>								
Capital expenditures	\$259.0	\$200.0	\$200.0	\$200.0	\$200.0	\$150.0	\$150.0	\$150.0
Changes in working capit	12.9	2.9	4.4	5.5	6.2	6.5	6.5	6.5
Operating deficit	42.8	24.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash Interest	16.0	58.5	88.5	118.5	148.5	148.5	148.5	148.5
Preferred dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash taxes	0.0	0.0	0.0	0.0	15.2	35.0	55.6	73.3
Total Uses	\$330.7	\$285.4	\$292.9	\$324.0	\$369.8	\$340.0	\$360.7	\$378.3
<b>SOURCES OF FUNDS</b>								
Debt	\$85.0	\$300.0	\$300.0	\$300.0	\$300.0	\$0.0	\$0.0	\$0.0
Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating surplus	0.0	0.0	11.0	72.9	145.6	217.2	291.1	356.4
Cash interest	0.7	1.8	2.3	2.9	4.5	6.9	3.4	1.4
Total Sources	\$85.7	\$301.8	\$313.3	\$375.9	\$450.1	\$224.1	\$294.5	\$357.9
Cash (bop)	26.5	60.4	76.8	97.2	149.1	229.3	113.4	47.3
Change in Cash	(244.9)	16.4	20.4	51.9	80.3	(115.9)	(66.2)	(20.4)
Cash (eop)	\$60.4	\$76.8	\$97.2	\$149.1	\$229.3	\$113.4	\$47.3	\$26.8
Debt (eop)	\$345.0	\$645.0	\$945.0	\$1,245.0	\$1,545.0	\$1,545.0	\$1,545.0	\$1,545.0

Source: PaineWebber estimates.

Figure 53

**Electric Lightwave balance sheet**

(US\$ in millions)	1997	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
Cash and equiv.	\$26.5	\$60.4	\$76.8	\$97.2	\$149.1	\$229.3	\$113.4	\$47.3	\$26.8
Accounts rec.	12.6	16.7	24.9	39.5	57.5	77.8	99.1	120.5	141.8
Other receivables	7.7	4.7	4.6	4.8	3.5	4.7	6.0	7.3	8.6
Prepaid exp. & other	0.8	0.9	1.2	1.9	1.7	2.4	3.0	3.7	4.3
Total Current Assets	\$47.6	\$82.7	\$107.5	\$143.5	\$211.9	\$314.2	\$221.6	\$178.7	\$181.5
PP&E, net	290.3	526.5	683.8	821.2	938.8	1,036.5	1,069.3	1,087.2	1,090.2
Other assets	22.0	14.0	15.2	19.2	17.5	14.2	12.1	5.9	4.3
Total Assets	\$360.0	\$623.2	\$806.5	\$983.9	\$1,168.2	\$1,364.9	\$1,302.9	\$1,271.8	\$1,276.1
Accounts payable and accrued	\$50.2	\$56.2	\$60.7	\$72.1	\$80.5	\$94.6	\$102.5	\$109.9	\$112.1
Taxes other than income	3.1	2.8	3.0	2.4	1.7	1.9	1.8	1.5	0.9
Due to Citizens	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	3.1	3.3	3.4	3.6	3.8	4.0	4.2	4.4	4.6
Total Current Liabilities	\$57.4	\$62.3	\$67.1	\$78.1	\$86.0	\$100.5	\$108.4	\$115.8	\$117.6
Deferred credits and other	\$1.8	\$2.1	\$2.4	\$2.7	\$3.1	\$3.6	\$4.2	\$4.8	\$5.5
Deferred income taxes	16.9	20.3	24.4	29.2	35.1	42.1	50.5	60.6	72.7
Capitalized leases	10.5	23.5	33.5	43.5	53.5	63.5	71.0	78.5	86.0
Due to Citizens	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long Term Debt	60.0	345.0	645.0	945.0	1,245.0	1,545.0	1,545.0	1,545.0	1,545.0
Total Liabilities	\$146.6	\$453.1	\$772.3	\$1,098.6	\$1,422.7	\$1,754.6	\$1,779.1	\$1,804.6	\$1,826.8
Shareholder's Equity	\$213.3	\$170.1	\$34.1	(\$114.6)	(\$254.5)	(\$389.7)	(\$476.1)	(\$532.8)	(\$550.7)
Total Liabilities & SE	\$360.0	\$623.2	\$806.5	\$983.9	\$1,168.2	\$1,364.9	\$1,302.9	\$1,271.8	\$1,276.1

Source: PaineWebber estimates and company data.

Figure 54

## Electric Lightwave quarterly income statement

(US\$ in millions)	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98E	3Q98E	4Q98E	1998E	1999E
Dedicated services	\$6.1	\$8.0	\$9.2	\$10.2	\$33.5	\$9.1	\$9.5	\$10.0	\$11.0	\$39.6	\$51.5
Local dial-tone	1.2	2.0	2.9	4.4	10.6	6.0	7.1	8.5	10.2	31.7	64.7
Long-distance	1.5	1.9	2.7	2.0	8.1	1.8	1.8	1.8	1.9	7.3	13.9
Enhanced service	1.7	2.3	2.3	2.5	8.9	3.1	3.7	3.9	4.3	15.0	21.6
Total Revenue	\$10.5	\$14.2	\$17.1	\$19.2	\$61.1	\$20.1	\$22.1	\$24.2	\$27.3	\$93.7	\$151.7
% growth					95.1%	90.5%	54.8%	41.9%	42.0%	53.3%	62.0%
Cost of sales *	9.6	12.0	12.5	14.8	48.9	16.3	18.9	19.9	21.1	76.2	96.8
% sales	91.4%	84.4%	73.0%	76.8%	80.0%	81.1%	85.8%	82.2%	77.3%	81.4%	63.8%
GM (est)	\$0.9	\$2.2	\$4.6	\$4.5	12.2	\$3.8	\$3.1	\$4.3	\$6.2	\$17.4	\$54.9
% sales	8.6%	15.6%	27.0%	23.2%	20.0%	18.9%	14.2%	17.8%	22.7%	18.6%	36.2%
SG&A (est)	8.1	9.2	8.3	9.5	35.1	13.6	14.3	15.4	16.9	60.2	78.9
% sales	77.4%	64.4%	48.7%	49.2%	57.5%	67.7%	65.0%	63.5%	62.0%	64.3%	52.0%
EBITDA	(\$7.2)	(\$7.0)	(\$3.7)	(\$5.0)	(\$22.9)	(\$9.8)	(\$11.2)	(\$11.1)	(\$10.7)	(\$42.8)	(\$24.0)
% sales	-68.8%	-48.8%	-21.7%	-26.0%	-37.5%	-48.7%	-50.8%	-45.7%	-39.3%	-45.7%	-15.8%
% growth											
D&A	2.8	2.8	2.0	3.6	11.2	3.9	5.7	7.6	9.5	22.8	42.7
EBIT	(\$10.1)	(\$9.7)	(\$5.7)	(\$8.6)	(\$34.1)	(\$13.7)	(\$16.9)	(\$18.7)	(\$20.2)	(\$65.6)	(\$66.7)
% sales	-95.6%	-68.4%	-33.4%	-44.6%	-55.8%	-68.1%	-76.9%	-77.1%	-74.0%	-70.1%	-44.0%
Interest expense, net	0.1	0.0	0.6	0.7	1.2	0.7	2.7	4.8	6.8	15.0	56.7
Pretax	(\$10.2)	(\$9.7)	(\$6.3)	(\$9.2)	(\$35.3)	(\$14.4)	(\$19.7)	(\$23.5)	(\$27.0)	(\$80.6)	(\$123.4)
% sales	-96.5%	-68.4%	-36.8%	-47.9%	-57.7%	-71.8%	-89.1%	-96.8%	-98.7%	-86.1%	-81.3%
Tax expense	-	-	-	(1.3)	(1.3)	(2.4)	-	-	-	-	-
Net loss	(\$10.2)	(\$9.7)	(\$6.3)	(\$7.9)	(\$33.9)	(\$14.8)	(\$19.7)	(\$23.5)	(\$27.0)	(\$80.6)	(\$123.4)
% sales	-96.5%	-68.4%	-36.8%	-41.1%	-55.6%	-73.7%	-89.1%	-96.8%	-98.7%	-86.1%	-81.3%
EPS -bef. charges	(\$0.24)	(\$0.23)	(\$0.14)	(\$0.18)	(\$0.80)	(\$0.24)	(\$0.39)	(\$0.46)	(\$0.53)	(\$1.62)	(\$2.36)
EPS - eff. of charges	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	(\$0.06)	\$0.00	\$0.00	\$0.00	(\$0.06)	\$0.00
EPS - total	(\$0.24)	(\$0.23)	(\$0.14)	(\$0.18)	(\$0.80)	(\$0.30)	(\$0.39)	(\$0.46)	(\$0.53)	(\$1.68)	(\$2.36)
Weighted Shares o/s	41.7	42.8	43.5	44.4	42.4	49.7	50.2	50.7	51.2	48.0	52.2

Source: PaineWebber estimates and company data.

## GST Telecommunications

Rating: Buy

Target price: \$20

## Highlights

- GST Telecom, our Analysts' Best Call, has established itself as the fastest-growing facilities-based CLEC in the Western United States. Renewed focus on the core telecommunications business combined with a data-centric approach to serving customer needs will improve the company's performance and increase its value to potential buyers.
- We initiated coverage of GST with a Buy rating. The company is trading at a discount to the group in terms of revenue and PP&E multiples despite its high growth rate and strategic asset base. Our valuation based on a DCF analysis gives us a 12-month target price of \$20 per share, a 26% premium to the company's current share price of \$15 7/8.
- The company is just hitting stride in its ability to provide new access lines. Having deployed six Class 5 switches and additional capacity to existing switches in the first quarter, we believe GST is well positioned to accelerate its rate of provisioning to reach 100,000 new lines installed in 1998. New expansion in major markets such as Seattle, Houston, San Francisco and Los Angeles will increase the company's addressable market by over 3 million access lines.
- In its western U.S. markets, the company is building local and long-haul networks based on ATM technology to provide low-cost, high-quality service to midsized business customers. Its strategy to build end-to-end networks will make the company less reliant on incumbent providers and more attractive to potential acquirers.
- Data and Internet services grew 33% quarterly in the first quarter of 1998, and currently account for 10% of total revenues. In the second half, the company will light its ATM backbone and begin to provide high-quality voice, data and video services to its customers over a broadband, ATM pipe.

7/16 price \$15 15/16 OTC - GSTX 52-week range \$10 11/16-\$16 7/8			
FY EPS	1997	1998E	1999E
Q1	\$(0.39)	\$(1.19)	—
Q2	(1.15)	(1.42)	—
Q3	(1.72)	(1.36)	—
Q4	(1.39)	(1.35)	—
Year	\$(4.65)	\$(5.32)	\$(5.65)
P/E	—	—	—
Div	—	—	—
Yield	—	—	—
Secular Growth Rate	40%		

**Company description:** GST Telecommunications is a CLEC focusing on markets in the western United States. The company provides voice, data and Internet service to small and medium-sized companies and private lines to ISPs from networks in 20 local markets.

## Overview

GST Telecommunications offers local, long-distance, Internet access and enterprise data services to business customers in the western United States. Still in the early stages of growth, the company has installed 13 voice switches in the past ten months and now operates a total of 14. Local fiber facilities have been constructed in over 20 mostly medium-sized and smaller markets. The company's strategy hinges on building out existing markets and interconnecting them with company leased and owned long-haul fiber.

While initially focusing on second- and third-tier cities, GST is deploying assets in large markets such as Los Angeles, San Francisco and Houston where urban density should allow it to better leverage its infrastructure. The company sells its service to data-intensive small and medium-sized businesses and Internet service providers.

GST is currently led by acting CEO Joseph Basile, who took over when then CEO and co-founder John Warta left the company in June. Mr. Basile is backed by a group of senior managers that has the experience necessary to guide GST through its high-growth years. The company recently completed a high-yield offering, securing net proceeds of \$289 million and funding its buildout plans into 2000.

## Investment case

*At \$15 7/8 per share, GST trades at 4.1x and 2.7x our estimates for 1999 and 2000 revenue, respectively, discounts to the group's 4.4x and 3.2x multiples for the same periods.* This is despite an estimated five-year revenue CAGR of 50%, compared with the group's 40% expected rate. We expect the company to show positive EBITDA in the second or third quarter of 1999. The company's EV/PP&E multiple of 2.8x is also lower than the group's 4.2x multiple. Our discounted cash flow analysis using a 14% cost of capital and 15% public market discount gives us a 12-month target price of \$20 per share.

*The company continues to refine its strategy, moving away from secondary goals to focus on its opportunity in the local service market.* During the first quarter of 1998, the company sold its remaining interest in NACT, a manufacturer of customer premises equipment, realizing \$85 million in proceeds and establishing the company as a pure play in telecom services. The retirement of founder and CEO, John Warta, will likely continue this trend.

*Previous concerns about the company's liquidity have been satisfactorily addressed.* In the second quarter, the company raised net proceeds of \$289 million in a high-yield offering. Combined with net proceeds of \$211 million raised in concurrent debt and equity offerings in November, the company's pro forma first quarter 1998 cash balance of approximately \$665 million should fully fund its current business plan into the year 2000.

*GST's top-line growth should accelerate over the next 12 months as the company's new markets pick up steam.* Net lines added in the first quarter of 1998 were relatively flat versus the fourth quarter of 1997 due to a shortage of switching capacity in existing markets. The company turned up six switches in the first quarter and added capacity to existing switches, creating a broad addressable market that should begin to bear fruit in the second quarter. We expect net access line additions to double over the next six months, reaching over 35,000 new adds per quarter by year-end.

*GST has assembled a base of strategic assets in high-growth western markets that we believe will be very attractive to potential suitors.* The company has local fiber in Honolulu, Riverside, Phoenix, Tucson, Albuquerque, Spokane, San Luis Obispo, Fresno, Portland, and Boise, and plans to deploy fiber in Los Angeles, San Francisco, Houston and Seattle in 1998.

As part of the company's facilities-based strategy, GST is tying its markets together with a combination of owned and leased long-haul fiber optic capacity. The company

recently turned up a 500-mile fiber route from San Francisco to Los Angeles. These assets are typically awarded high multiples by the market, as seen in the valuation of Qwest Communications and IXC Communications.

## Strategic assessment

*Facilities-based service provision*—GST's network strategy focuses on the construction of fiber infrastructure in urban business districts to address the market's most important COs, and provide connections to IXC POPs and LEC points of interconnection. These networks are then interconnected with GST-owned or leased fiber.

GST's first switch was installed in Hawaii in the first quarter of 1997. The company then constructed local fiber networks in Honolulu and Kauai. An undersea fiber network was completed in the second quarter of 1997 to link the six major islands. GST is now the largest competitor to incumbent GTE in the state.

In the third quarter of 1997, the company established its presence in the southwestern United States, installing new switches in Phoenix, Tucson and Albuquerque, and in Riverside, California. Subsequent expansion efforts have focused on building scale in existing markets and expanding into new, strategically important markets from coastal Washington state to Texas.

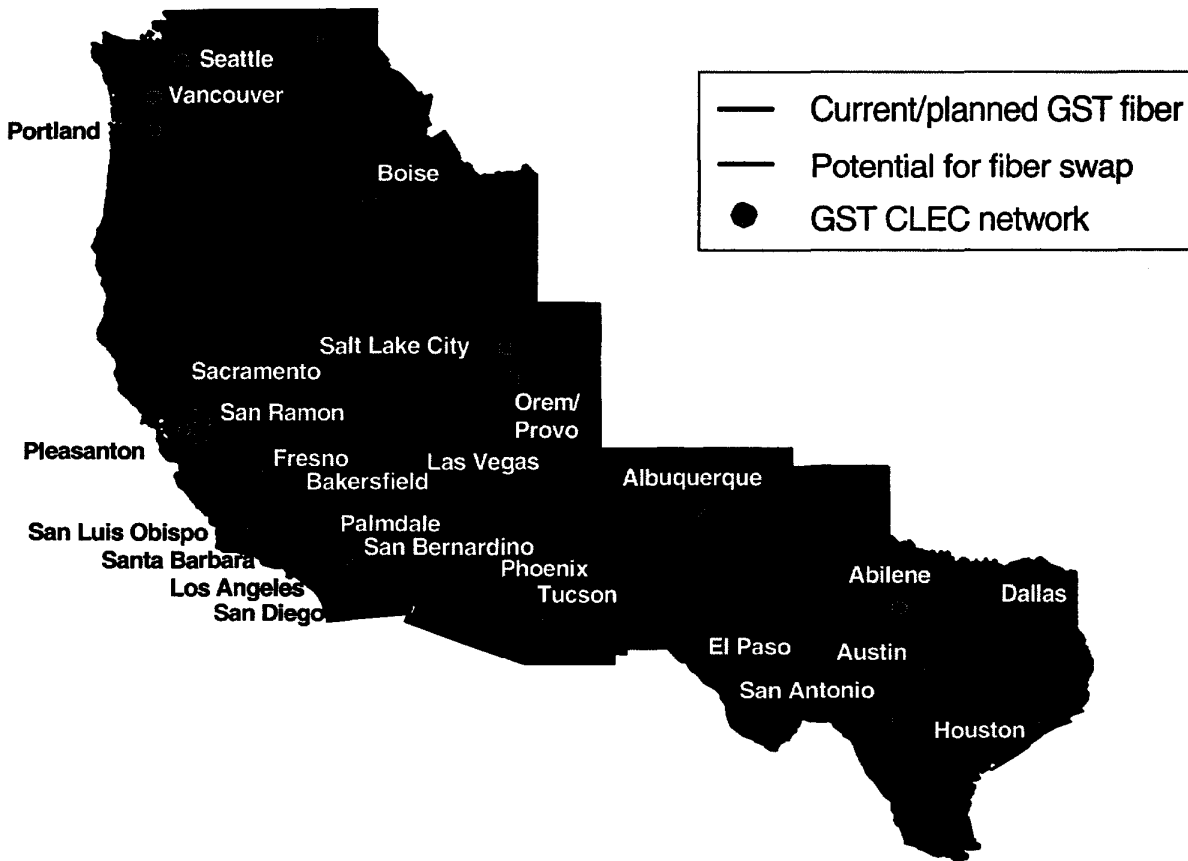
The construction of interLATA transport facilities will lower the company's operating costs, increase revenues through the sale of dedicated circuits and dark fiber and ensure the company has required capacity in the future. As of the first quarter, the company had 3,289 route miles in service, deployed largely in southern California.

On company-constructed routes, GST is burying six conduits with the capacity to carry 214 strands of fiber each. Initially, it will pull 144 fibers through two conduits to provide the company with enough capacity to make wholesale leases a substantial part of its revenue mix. The other four conduits are available for sale or lease and can be accessed to meet future demand.

GST also has a 24% investment in GST Global, a Vancouver-listed company that is constructing a fiber network from Laredo, Texas, to Monterrey and Guadalajara, Mexico. Traffic between the U.S. and Mexico generated over \$1.7 billion for U.S. carriers in 1996, making it the most lucrative cross-border market. As the company develops its presence in California, Arizona, New Mexico and Texas, the ability to cheaply terminate traffic in Mexico will become advantageous.



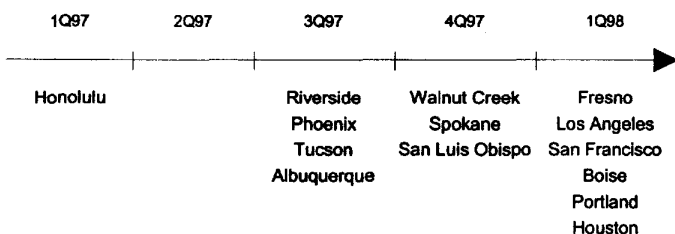
Figure 55

**The GST network**

Source: GST Telecommunications.

**Expansion into major markets**—GST has installed 13 switches during the last three quarters, dramatically expanding its footprint and ability to provision on-network lines. This has grown the company's addressable market to approximately 6.6 million access lines.

Figure 56

**GST switch installations**

Source: PaineWebber and company data.

The company begins selling local service 90 days before installing a switch. This allows GST to better leverage its infrastructure by having lines on order when the new switch is turned up while avoiding the losses associated with entering a market through TSR. At the end of the

first quarter, approximately 88% of the company's access lines were on-switch, while only 12%, or approximately 5,500 were provisioned through TSR.

The increase in number and size of the company's new markets combined with the addition of new sales people should increase the number of lines sold each quarter. To keep up with this demand, GST has invested heavily in the latest support systems to improve its ability to manage provisioning, billing and customer care.

In February 1998, GST selected Kenan Systems to provide billing software. The company has completed testing of the system and is currently moving customers onto the new platform. Metasolv's latest provisioning system software has also been installed and is currently conducting an inventory of the GST network. A trouble-ticketing system is expected to be fully installed and operational by August. These systems are key to providing the high levels of customer service that will keep churn low and enable the company to add new customers quickly. We expect to see the benefits of this investment in the form of increased net access lines added beginning in the third quarter.

*Divestiture of equipment manufacturing business*—In February 1998, GST announced it had completed the sale of its remaining interest in NACT Telecommunications, a manufacturer of telecommunications equipment. The company had owned 100% of NACT, purchasing it in a series of transactions from 1993 to 1995 for \$8.9 million in cash, stock and notes payable. GST sold 1 million shares of stock in NACT in a public offering in February 1997 for \$9 million. Its remaining interest was sold to World Access for approximately \$59.6 million in cash and \$29.8 million in World Access stock. The World Access stock was converted to cash immediately following the close of the transaction. Proceeds will be used to continue the buildout of the company's telecommunications infrastructure.

*Data focus*—Data services currently account for approximately 10% of the company's revenue mix. However, growth of 33% quarter over quarter compared with 15% for local service and 7% for long-distance will make it a major contributor to the top line by year-end.

The company has deployed 21 Cascade frame relay switches in its markets, which served 1,358 frame relay nodes at the first quarter. To expand its network reach, GST has established NNIs with other carriers which give it access to 360 markets worldwide.

With technology provided by Nortel, the company will push ATM out to its interconnected COs by year-end 1998. ATM will be used to deliver voice, data and video services to customers inexpensively over a single high-capacity line. Broad acceptance of this approach is expected to increase revenue per customer, expand margins, prevent churn and improve returns on invested capital.

*Acquisitions*—The company has completed three acquisitions in two months to give it scale in its targeted markets and improve its product portfolio:

*ICON Communications* was acquired in April 1997 for \$23.8 million in cash, or 1.2x 1997 revenues of \$19.2 million. ICON posted \$1.2 million in EBITDA in the same period. The company provides local, long-distance and data services in the Northwest, primarily in Seattle and Portland, giving GST needed scale in these important markets. At the end of the first quarter, ICON had over 5,000 resold access lines in service.

*Whole Earth Networks* was acquired in March 1998 for \$9 million in cash and assumption of debt to improve GST's data capabilities. Whole Earth is an ISP providing mostly

dial-up services to customers in the Bay Area and the Pacific Northwest. The company operates a regional backbone with connections at three network access points and has peering arrangements with the major backbone providers. While the majority of Whole Earth's revenue is from dial-up connections to customers, management believes that the addition of high-speed access to its product portfolio will complement the existing service, improve margins and help drive top-line growth.

Also in March 1998, GST agreed to purchase *Call America Phoenix*, a long-distance reseller based in Phoenix, Arizona, for \$4 million. The purchase will give GST additional traffic on its Phoenix-Los Vegas-Los Angeles and Tucson-Phoenix long-haul fiber routes. It also provides a customer base in the Southwest to which GST can market its full range of voice, data and Internet products.

## Management assessment

Each of the top five managers at GST has at least 15 years of experience in the telecommunications industry. They have held leadership positions with many large and small carriers, including Electric Lightwave, Cable & Wireless, Pacific Telecom and Qwest Communications.

John Warta, the chairman and CEO and a founder of the company, recently announced his retirement from GST. In a statement released by the company, it was explained that Mr. Warta was distressed at the recent death of high school friend and co-founder of GST, Earl Kamsky, and has decided to spend more time with his family. He will remain a director of GST and continues to hold approximately 5% of the company's shares.

Mr. Warta seems to have been the driving force behind the company's international and wireless expansion strategies. His absence will likely refocus the company on the internal growth of its traditional western markets.

Joseph Basile, GST's current president and COO, will fill the role of acting CEO while the search begins for a replacement for Mr. Warta. Mr. Basile joined the company in early 1997 and was formerly president of Cable & Wireless with oversight responsibility for the company's voice, data, wireless and local business units.

Mr. Basile has over 17 years of experience in the telecommunications industry. We feel very confident that he has the leadership ability and telecommunications expertise to lead the company. Furthermore, Mr. Basile's background as an operations manager make us more confident in the company's ability to hit internal growth estimates, the main factor driving valuations in the group.

Daniel Trampush, CFO, joined GST in March 1997. Prior to this, he was a partner with Ernst & Young's telecommunications consulting practice. With almost 30 years in the telecommunications industry, Mr. Trampush has the experience and leadership necessary to provide financial leadership to a new competitor like GST.

The technical and engineering management has a strong background that will aid the company as it continues its network buildout. Kevin Wright, the chief technology officer, has worked for a number of large carriers where he was responsible for the installation of over 150 Class 5 switches. Dan Moffat, the senior vice president and chief marketing officer, is overseeing the company's data strategy and the rollout of its next-generation network. Mr. Moffat has a unique background, having served in various marketing and data networking fields with Pacific Telecom, IBM/ROLM and US West.

### Financial assessment

In the first quarter of 1998, 45% of the company's revenue was generated by long-distance, 27% through sales of private lines, 16% through switched local, 9% through data and Internet and 3% through equipment and non-telecom services sales.

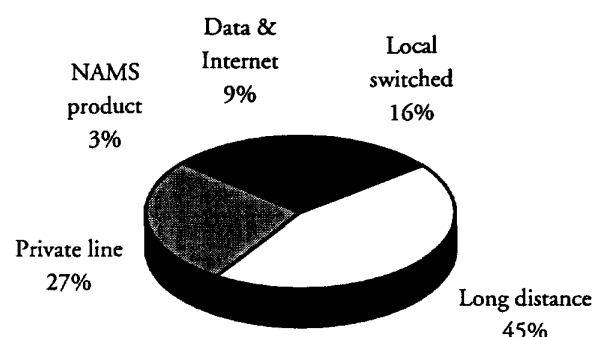
#### Switched service

Local and long-distance revenues are driven by installation of new access lines. At the end of the first quarter, GST had 44,846 access lines in service. The company added 15,993 lines in the first quarter, just ahead of the 15,132 lines added in the fourth quarter of 1997. Management explains that net adds were essentially flat because the high number of lines provisioned in the fourth quarter left the company with little excess switching capacity, preventing new lines from being installed. Average revenue per line has been very high due to the large percentage of lines sold to ISPs. In the first quarter, a full 40% of access line sales were to ISPs.

The switches were augmented in the first quarter, with 50,000 additional ports brought on. The launch of six new markets should also enable the company to dramatically improve the number of lines provisioned in the coming quarters. By year-end, we expect GST to be able to provision over 30,000 lines per quarter, roughly double its fourth quarter 1997 results. We estimate the company will add just under 100,000 access lines in 1998, finishing the year with approximately 134,000 lines in service including an estimated 6,000 access lines gained in the acquisition of ICON Communications.

Figure 57

### GST's revenue mix, 1Q98



Source: PaineWebber and company published data.

#### Data and Internet

The company's data service business has been strong as well, with revenue growing almost 33% quarterly in the first quarter to \$2.8 million. Only \$44,000 of this revenue was generated by Whole Earth, as the acquisition closed late in the quarter.

While still small, the company is rapidly growing its frame relay business. At the end of the first quarter, GST had 1,358 frame relay nodes in service, up from 1,144 in the fourth quarter of 1997.

Table 4

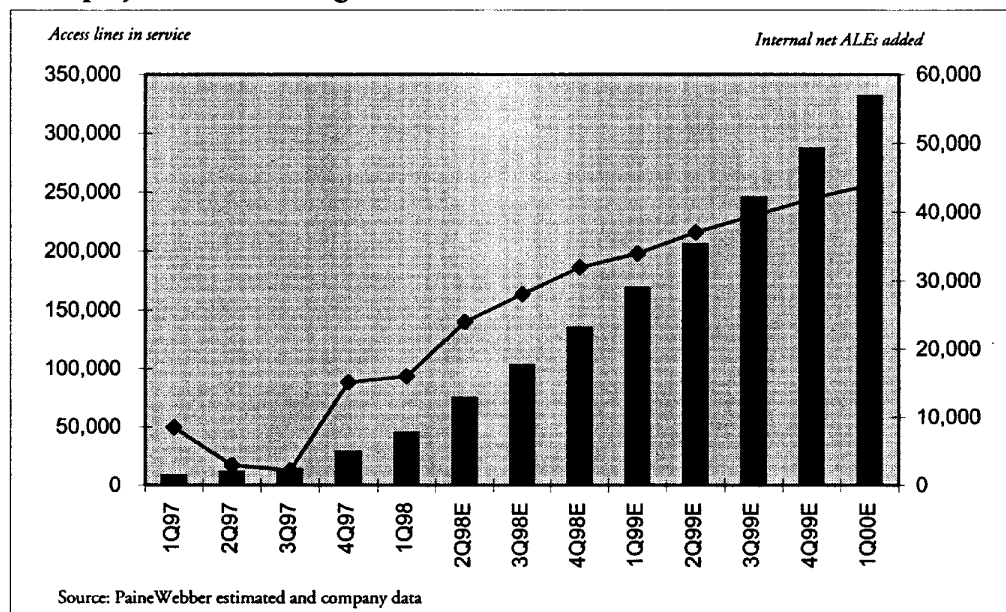
### GST's projected access line growth

	1Q98	2Q98E	3Q98E	4Q98E	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
Access Lines (bop)	28,853	44,846	74,846	102,846	28,853	134,846	287,346	457,346	642,346	842,346	1,042,346	1,242,346
Net adds, internal	15,993	24,000	28,000	32,000	99,993	152,500	170,000	185,000	200,000	200,000	200,000	200,000
Net adds, acquisitions	0	6,000	0	0	0	0	0	0	0	0	0	0
Access Lines (eop)	44,846	74,846	102,846	134,846	134,846	287,346	457,346	642,346	842,346	1,042,346	1,242,346	1,442,346
% growth	428%	553%	650%	367%	367%	113%	59%	40%	31%	24%	19%	16%
Average access lines	36,850	62,846	73,846	104,846	81,850	211,096	372,346	549,846	742,346	942,346	1,142,346	1,342,346

Source: PaineWebber estimates and company data.

Chart 4

## GST's projected access line growth

*Dedicated*

GST's extensive transport infrastructure can be leveraged through additional sales of bulk capacity. In the first quarter, the company announced it had sold 49 DS-3 circuits, representing almost \$700,000 in quarterly revenues. Management believes its current facilities could provide sales of \$300-400 million over the next 12-18 months.

Gross margins will continue to improve as the company better leverages existing infrastructure. Growth in local service, driven by increases in the number of on-network access lines will also positively affect margins. We are projecting gross margins will reach 34% in the fourth quarter and 40% in 1999.

We do not expect SG&A to rise dramatically as the new markets come on line. Management has stated its intention to closely watch expenses to attain operating cash flow breakeven in early 1999. We are estimating that the fourth quarter of 1997 saw the peak EBITDA loss, at \$14.4 million, and we are projecting EBITDA breakeven in the second or third quarter of 1999.

*Financial position*

As of the first quarter, GST had \$375 million in cash. A subsequent private offering raised an additional \$290 million. We have forecast GST capital expenditures at \$850 million for the next three years. With this high level of

investment, the company's current cash should provide it with required liquidity through early 2000.

Recent fund raising efforts have left GST highly leveraged, with a debt-to-public equity ratio of almost 2:1. This has likely been a factor in the discount the company receives in regard to revenue and PP&E multiples relative to the group.

*Valuation*

Our DCF analysis employs a 14% cost of capital, a 9x estimated 2005 EBITDA terminal multiple and a 20% public market discount. Based on these parameters, we arrive at a target price of \$20 per share. This represents a 26% premium based on the recent stock price of \$15 7/8 per share.

For the year ending December 1999, we expect the company to generate \$327 million in revenue. At \$15 7/8 per share, GST's enterprise value of \$1.3 billion puts the company's enterprise value to 1999 revenue multiple at 4.1x. This falls to 2.7x based on our \$489 million estimate for 2000. This compares with 4.4x and 3.2x for the group for 1999 and 2000, respectively. The company's multiple of gross PP&E of 2.8x is also lower than the group's average 4.2x and contrasts with recent acquisitions of major CLECs that have taken place of PP&E multiples of 5.0x or greater.

**Conclusion**

GST combines a rapid facilities-based expansion strategy with rapid growth of access lines and revenues. While this strategy involves more risk, and creates lower gross margins in the near term, the payoff is potentially greater for a successfully executed business plan.

We believe GST has the know-how, asset base and systems installed to effectively manage the rapid growth we expect from the company over the next five years. Current

investments will ensure the company has the right network infrastructure in place to effectively compete in the future.

As competition increases in local markets, facilities-based, low-cost carriers capable of delivering the latest bundled service offerings will stand out in terms of operating performance and as potential takeover candidates. Considering the company's strengths in these areas, its attractive markets, and our \$20 price target, representing a 26% premium over the current price of \$15 7/8, we consider the stock our top pick in the sector

Figure 58

## GST statement of operations

(US\$ in millions)	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
Data & Internet	\$19.3	\$38.0	\$70.3	\$119.6	\$173.4	\$234.1	\$304.3	\$395.6
Local switched	35.3	103.9	174.3	250.7	338.5	429.7	507.2	596.0
Long distance	74.3	126.7	169.8	230.9	311.8	373.2	438.7	483.2
Local private line	17.5	19.2	21.2	23.3	25.6	28.2	31.0	34.1
Long haul private line	17.6	35.2	49.3	64.1	76.9	92.3	110.7	132.9
NAMS product	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Revenue	\$167.8	\$327.0	\$488.8	\$692.6	\$930.2	\$1,161.4	\$1,395.9	\$1,645.8
% change	41.0%	94.8%	49.5%	41.7%	34.3%	24.9%	20.2%	17.9%
GM	\$48.4	\$131.7	\$228.1	\$354.9	\$507.1	\$650.1	\$791.5	\$937.7
% sales	28.9%	40.3%	46.7%	51.2%	54.5%	56.0%	56.7%	57.0%
SG&A	96.8	130.8	146.7	180.1	223.2	267.1	307.1	362.1
% sales	57.7%	40.0%	30.0%	26.0%	24.0%	23.0%	22.0%	22.0%
EBITDA	(\$48.4)	\$0.9	\$81.5	\$174.8	\$283.8	\$383.0	\$484.4	\$575.6
% sales	-28.8%	0.3%	16.7%	25.2%	30.5%	33.0%	34.7%	35.0%
Non-cash amortization	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Stock-based comp.	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Operating Cash Flow	(\$44.5)	\$4.9	\$85.5	\$178.8	\$287.8	\$387.0	\$488.4	\$579.6
D&A	32.2	50.4	68.5	80.6	89.7	98.8	107.8	116.9
EBIT	(\$80.6)	(\$49.4)	\$13.0	\$94.2	\$194.2	\$284.2	\$376.6	\$458.7
% sales	-48.0%	-15.1%	2.7%	13.6%	20.9%	24.5%	27.0%	27.9%
Interest expense	119.7	140.1	176.3	207.5	213.4	221.2	221.9	221.9
Interest income	(22.7)	(5.0)	(0.8)	(0.6)	(1.6)	(2.1)	(3.0)	(3.6)
Loss from joint venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	(60.6)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pre-tax income	(\$122.8)	(\$184.5)	(\$162.6)	(\$112.7)	(\$17.6)	\$65.2	\$157.7	\$240.4
% sales	-73.2%	-56.4%	-33.3%	-16.3%	-1.9%	5.6%	11.3%	14.6%
Tax expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	(122.8)	(184.5)	(162.6)	(112.7)	(17.6)	65.2	157.7	240.4
% sales	-73.2%	-56.4%	-33.3%	-16.3%	-1.9%	5.6%	11.3%	14.6%
Preferred stock	5.1	7.5	8.4	9.4	10.6	11.9	0.0	0.0
Net income to common s/o	(127.9)	(192.0)	(171.0)	(122.1)	(28.2)	53.3	157.7	240.4
EPS - extraordinary	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EPS - continuing	(\$5.32)	(\$5.65)	(\$4.93)	(\$3.45)	(\$0.78)	\$1.45	\$4.20	\$6.28
EPS - total	(\$3.57)	(\$5.65)	(\$4.93)	(\$3.45)	(\$0.78)	\$1.45	\$4.20	\$6.28
Weighted avg. s/o	35.8	34.0	34.7	35.4	36.1	36.8	37.5	38.3
EBIT*(1-t)	(\$80.6)	(\$49.4)	\$13.0	\$94.2	\$194.2	\$284.2	\$376.6	\$458.7
Plus: D&A	32.2	50.4	68.5	80.6	89.7	98.8	107.8	116.9
Less: capex	251.8	300.0	300.0	200.0	150.0	150.0	150.0	150.0
Less: changes in working cap.	(3.4)	4.8	4.9	6.1	7.1	6.9	7.0	7.5
= Free Cash Flow	(\$296.8)	(\$303.9)	(\$223.4)	(\$31.3)	\$126.7	\$226.0	\$327.4	\$418.1

Source: PaineWebber and company published data.

Figure 59

**GST sources and uses of cash**

(US\$ in millions)	1998E	1999E	2000E	2001E	2002E	2003E	2004E	2005E
<b>USES OF FUNDS</b>								
Acquisitions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Capital expenditures	251.8	300.0	300.0	200.0	150.0	150.0	150.0	150.0
Changes in working capital	(3.4)	4.8	4.9	6.1	7.1	6.9	7.0	7.5
Operating deficit	44.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash Interest	45.9	45.0	44.1	92.2	91.3	159.4	176.9	176.9
Principal Repayment	0.0	0.0	0.0	0.0	0.0	0.0	112.0	0.0
Preferred dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Uses</b>	<b>\$338.8</b>	<b>\$349.8</b>	<b>\$348.9</b>	<b>\$298.3</b>	<b>\$248.4</b>	<b>\$316.3</b>	<b>\$445.9</b>	<b>\$334.4</b>
<b>SOURCES OF FUNDS</b>								
Debt	\$0.0	\$0.0	\$250.0	\$200.0	\$0.0	\$0.0	\$0.0	\$0.0
Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating surplus	0.0	4.9	85.5	178.8	287.8	387.0	488.4	579.6
Cash interest	45.9	5.0	0.8	0.6	1.6	2.1	3.0	3.6
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Sources</b>	<b>\$45.9</b>	<b>\$9.9</b>	<b>\$336.3</b>	<b>\$379.4</b>	<b>\$289.5</b>	<b>\$389.1</b>	<b>\$491.5</b>	<b>\$583.2</b>
Cash (bop)	343.5	401.4	61.6	48.9	130.0	171.0	243.8	289.3
Change in Cash	57.9	(339.8)	(12.7)	81.1	41.0	72.8	45.5	248.8
Cash (eop)	\$401.4	\$61.6	\$48.9	\$130.0	\$171.0	\$243.8	\$289.3	\$538.1
Debt (eop)	\$1,140.9	\$1,226.0	\$1,573.2	\$1,833.5	\$1,897.7	\$1,904.5	\$1,904.5	\$1,904.5

Source: PaineWebber estimates.

Figure 60

**GST discounted cash flow analysis**

(US\$ in millions)	<u>1998E</u>	<u>1999E</u>	<u>2000E</u>	<u>2001E</u>	<u>2002E</u>	<u>2003E</u>	<u>2004E</u>	<u>2005E</u>
EBITDA	(\$44.5)	\$4.9	\$85.5	\$178.8	\$287.8	\$387.0	\$488.4	\$579.6
FCF	(296.8)	(303.9)	(223.4)	(31.3)	126.7	226.0	327.4	418.1
Discount Rate		14.0%						
PV of FCF, 1999-2004		(126.0)						
Terminal Value							\$5,216.3	
PV of Terminal Value		2,537.4						
Enterprise Value		\$2,411.4						
Debt, net		(1,164.4)						
Private Equity Value		\$1,247.0						
Public Market Discount		20%			Current Price		\$15.9	
Public Equity Value		\$997.6			Target Price		\$20	
Share o/s (f.d.)		49.5			Target Return		25.5%	
Target Price		\$20						

Source: PaineWebber estimates.

Figure 61

**GST valuation sensitivity analysis**

2005 Exit multiple		Target stock price - 20% public market discount				
		8.0x	8.5x	9.0x	9.5x	10.0x
Discount rate	13.0%	\$18	\$20	\$22	\$25	\$27
	13.5%	\$17	\$19	\$21	\$24	\$26
	14.0%	\$16	\$18	\$20	\$22	\$25
	14.5%	\$15	\$17	\$19	\$21	\$24
	15.0%	\$14	\$16	\$18	\$20	\$22

Source: PaineWebber estimates.

Figure 62

**GST balance sheet**

<i>(US\$ in millions, FYE 12/31)</i>	<u>1997</u>	<u>1998E</u>	<u>1999E</u>	<u>2000E</u>	<u>2001E</u>	<u>2002E</u>	<u>2003E</u>	<u>2004E</u>	<u>2005E</u>
Cash and equivalents	\$230.8	\$401.4	\$61.6	\$48.9	\$130.0	\$171.0	\$243.8	\$289.3	\$538.1
Accounts Receivable	27.3	36.8	71.7	100.4	142.3	191.1	206.8	248.6	293.1
Investments	7.6	8.4	9.2	10.1	11.2	12.3	13.5	14.8	16.3
Inventory	3.4	5.0	8.2	9.8	13.9	18.6	23.2	27.9	32.9
Other current assets	13.1	13.4	19.6	19.6	31.2	37.2	44.1	44.7	49.4
Total current assets	\$282.3	\$465.0	\$170.3	\$188.8	\$328.5	\$430.2	\$531.5	\$625.3	\$929.9
Investments	112.7	111.6	110.5	109.4	108.3	107.2	106.1	105.0	103.9
PP&E, net	406.9	626.5	876.1	1,107.6	1,227.0	1,287.3	1,338.6	1,380.7	1,413.8
Other assets, net	96.3	67.1	49.0	48.9	55.4	65.1	69.7	69.8	65.8
Total assets	\$898.2	\$1,270.3	\$1,206.0	\$1,454.8	\$1,719.2	\$1,889.9	\$2,045.8	\$2,180.9	\$2,513.4
Accounts payable	\$14.8	\$16.8	\$32.7	\$48.9	\$69.3	\$93.0	\$116.1	\$139.6	\$164.6
Accrued expenses	30.9	33.6	49.0	58.7	69.3	74.4	58.1	55.8	49.4
Current portion of capital leases	6.3	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Current debt	4.6	17.1	18.4	23.6	27.5	28.5	28.6	28.6	28.6
Other current	1.0	0.8	1.6	2.4	3.5	4.7	5.8	7.0	8.2
Total current liabilities	\$57.5	\$76.3	\$109.8	\$141.6	\$177.5	\$208.6	\$216.6	\$239.0	\$258.7
Other liabilities	1.4	1.7	3.3	4.9	6.9	9.3	11.6	14.0	16.5
Capitalized leases	14.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
LTD	765.4	1,140.9	1,226.0	1,573.2	1,833.5	1,897.7	1,904.5	1,904.5	1,904.5
Minority interest	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Preferred	54.6	61.3	68.8	77.2	86.7	97.3	109.2	0.0	0.0
Total Liabilities	\$905.7	\$1,300.2	\$1,427.8	\$1,816.9	\$2,124.6	\$2,232.8	\$2,261.8	\$2,177.4	\$2,199.7
Total Shareholder Equity	(\$7.6)	(\$29.9)	(\$221.9)	(\$362.2)	(\$405.3)	(\$342.9)	(\$216.0)	\$3.5	\$313.8
Total Liabilities and SE	\$898.2	\$1,270.3	\$1,206.0	\$1,454.8	\$1,719.2	\$1,889.9	\$2,045.8	\$2,180.9	\$2,513.4

Source: PaineWebber estimates.



Figure 63

## GST quarterly income statement

(US\$ in millions)	1Q97	2Q97	3Q97	4Q97	1997	1Q98	2Q98E	3Q98E	4Q98E	1998E	1999E
Data & Internet	\$1.1	\$1.4	\$1.7	\$2.1	\$6.2	\$2.8	\$4.6	\$5.5	\$6.5	\$19.3	\$38.0
Local switched	2.8	2.8	3.2	3.4	12.2	4.9	8.1	9.4	12.9	35.3	103.9
Long distance	9.8	9.7	11.2	11.2	41.9	13.5	18.9	19.9	22.0	74.3	126.7
Local private line	1.9	2.3	3.4	4.5	12.1	4.2	4.4	4.4	4.5	17.5	19.2
Long haul private line	2.8	3.1	3.0	4.9	13.8	3.8	4.2	4.6	5.0	17.6	35.2
NAMS product	0.0	0.6	0.8	1.4	2.8	0.9	1.0	1.0	1.0	3.9	4.0
Total Revenue	\$24.7	\$27.0	\$31.0	\$36.3	\$119.0	\$30.0	\$41.1	\$44.8	\$51.9	\$167.8	\$327.0
% change					105.2%	21.6%	52.0%	44.5%	43.1%	41.0%	94.8%
GM	\$2.2	\$5.4	\$7.6	\$9.4	\$24.6	\$4.3	\$9.4	\$14.8	\$19.9	\$48.4	\$131.7
% sales	8.8%	20.2%	24.4%	26.0%	20.7%	14.2%	22.9%	33.0%	38.4%	28.9%	40.3%
SG&A	15.4	18.7	30.1	22.4	86.6	20.4	23.8	25.1	27.5	96.8	130.8
% sales	62.3%	69.3%	96.9%	61.9%	72.8%	67.9%	58.0%	56.0%	53.0%	57.7%	40.0%
EBITDA	(\$13.2)	(\$13.3)	(\$22.5)	(\$13.0)	(\$62.0)	(\$16.1)	(\$14.4)	(\$10.3)	(\$7.6)	(\$48.4)	\$0.9
% sales	-53.6%	-49.1%	-72.6%	-35.8%	-52.1%	-53.7%	-35.1%	-23.0%	-14.6%	-28.8%	0.3%
Non-cash amortization	0.1	0.2	0.6	0.6	1.4	0.4	0.4	0.4	0.4	1.5	1.5
Stock-based comp.	0.0	0.0	9.6	0.4	9.9	0.9	0.5	0.5	0.5	2.4	2.5
Operating Cash Flow	(\$13.1)	(\$13.1)	(\$12.4)	(\$12.0)	(\$50.7)	(\$14.8)	(\$13.5)	(\$9.4)	(\$6.7)	(\$44.5)	\$4.9
D&A	4.5	5.7	9.3	8.9	28.3	8.7	9.7	10.7	11.8	32.2	50.4
EBIT	(\$17.7)	(\$18.9)	(\$31.9)	(\$21.9)	(\$90.4)	(\$24.8)	(\$24.0)	(\$21.0)	(\$19.4)	(\$80.6)	(\$49.4)
% sales	-71.7%	-70.1%	-102.6%	-60.3%	-75.9%	-82.6%	-58.6%	-46.9%	-37.4%	-48.0%	-15.1%
Interest expense	5.4	10.5	16.3	18.9	51.2	21.3	29.2	32.9	33.5	119.7	140.1
Interest income	(0.5)	(2.0)	(3.6)	(4.1)	(10.3)	(4.9)	(4.7)	(7.0)	(6.0)	(22.7)	(5.0)
Loss from joint venture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	(6.9)	0.3	1.2	1.6	(3.9)	(60.6)	0.0	0.0	0.0	(60.6)	0.0
Pre-tax income	(\$15.6)	(\$27.7)	(\$45.7)	(\$38.3)	(\$127.4)	\$19.5	(\$48.5)	(\$46.9)	(\$46.9)	(\$122.8)	(\$184.5)
% sales	-63.3%	-102.6%	-147.4%	-105.6%	-107.0%	64.9%	-118.2%	-104.5%	-90.4%	-73.2%	-56.4%
Tax expense	0.0	0.7	0.1	0.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Net income	(15.7)	(28.8)	(46.0)	(39.6)	(130.1)	19.5	(48.5)	(46.9)	(46.9)	(122.8)	(184.5)
% sales	-63.5%	-106.8%	-148.3%	-109.2%	-109.3%	64.9%	-118.2%	-104.5%	-90.4%	-73.2%	-56.4%
Preferred stock	0.0	0.0	0.0	3.1	3.1	0.0	1.6	1.7	1.7	5.1	7.5
Net income to common s/o	(15.7)	(28.8)	(46.0)	(42.7)	(133.3)	19.5	(50.2)	(48.6)	(48.6)	(127.9)	(192.0)
EPS - extraordinary	(\$0.31)	\$0.00	\$0.00	\$0.00	(\$0.31)	\$1.75	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
EPS - continuing	(\$0.39)	(\$1.15)	(\$1.72)	(\$1.39)	(\$4.65)	(\$1.19)	(\$1.42)	(\$1.36)	(\$1.35)	(\$5.32)	(\$5.65)
EPS - total	(\$0.70)	(\$1.15)	(\$1.72)	(\$1.39)	(\$4.95)	\$0.56	(\$1.42)	(\$1.36)	(\$1.35)	(\$5.37)	(\$5.65)
Weighted avg. s/o	22.4	25.2	26.7	30.8	26.9	35.0	35.4	35.7	36.1	35.8	34.0

Source: PaineWebber estimates.

## THE CLEC GRID

(US\$ in millions)

	e.spire	Electric Lightwave	GST Telecomm.	ICG Comm.	Intermedia Comm.	McLeod USA	NEXTLINK Comm.	Total
Symbol	ESPI	ELIX	GSTX	ICGX	ICIX	MCLD	NXLK	Total
Balance Sheet Data	3/31/98	3/31/98	3/31/98	3/31/98	3/31/98	3/31/98	3/31/98	
Price	\$21.281	\$11.750	\$15.938	\$36.250	\$41.188	\$36.250	\$33.875	
52-Week high	\$23.375	\$23.125	\$16.875	\$44.250	\$45.625	\$48.313	\$38.750	
52-Week low	\$6.875	\$10.625	\$10.688	\$17.750	\$15.188	\$28.625	\$19.375	
Float (mm shares)	19.9	8.5	7.5	29.5	32.7	35.1	19.3	152.5
Avg. Volume	374,000	215,000	273,000	768,000	488,000	216,000	311,000	2,645,000
Return: YTD	66.1%	-21.0%	34.2%	33.0%	35.6%	13.3%	58.9%	
Return: LTM	262.2%	-26.6%	129.7%	83.0%	184.1%	48.0%	78.3%	
Rating	Attractive	Neutral	Buy	N/R	Buy	N/R	N/R	
Target Price	\$24	nm	\$20	nm	\$50	nm	nm	
Implied Return	12.8%	nm	25.5%	nm	21.4%	nm	nm	

### CAPITALIZATION:

Shares Outstanding, primary	46.5	49.7	35.9	46.6	44.1	62.6	53.5	338.9
+ Options/warrants	19.1	2.6	5.4	7.9	8.1	11.9	3.7	58.8
+ Converts	0.0	0.0	8.4	0.0	15.4	0.0	4.6	28.4
Shares Outstanding, fully diluted:	65.6	52.3	49.7	54.5	67.6	74.6	61.8	426.1
MARKET VALUE:	\$1,395.2	\$614.9	\$792.3	\$1,975.6	\$2,785.1	\$2,702.7	\$2,093.2	\$12,359.0
Debt	\$495.8	\$120.0	\$1,096.9	\$1,301.7	\$2,191.6	\$931.4	\$1,494.6	\$7,631.9
+ Preferred Stock	213.7	0.0	54.6	431.1	334.7	0.0	518.8	1,552.9
- Cash	(274.0)	(21.8)	(560.6)	(523.2)	(782.8)	(600.6)	(1,653.7)	(4,416.8)
- Option Cash	(107.9)	(40.0)	(53.0)	(83.9)	(146.4)	(152.8)	(23.9)	(607.9)
Net Debt, (cash)	\$327.5	\$58.1	\$537.9	\$1,125.7	\$1,597.1	\$178.0	\$335.8	\$4,160.1
ENTERPRISE VALUE (EV)	\$1,722.7	\$673.0	\$1,330.2	\$3,101.3	\$4,382.2	\$2,880.7	\$2,429.0	\$16,519.1
Debt to Market Equity	50.8%	19.5%	145.3%	87.7%	90.7%	34.5%	96.2%	74.3%
Book value	(\$103.4)	\$199.6	\$30.1	(\$349.1)	(\$185.0)	\$537.7	\$7.6	\$137.6
Book value per share	-1.6x	3.8x	0.6x	-6.4x	-2.7x	7.2x	0.1x	0.3x

### REVENUE MIX (1Q98):

Data and Enhanced	34%	16%	9%	32%	27%	7%	20%	
Local	30%	30%	16%	30%	25%	58%	42%	
Long distance	0%	9%	45%	4%	33%	na	26%	
Dedicated and other	36%	45%	30%	34%	16%	35%	13%	

# THE CLEC GRID

<i>for the period ended:</i>	<b>ESPI</b> <i>03/31</i>	<b>ELIX</b> <i>03/31</i>	<b>GSTX</b> <i>03/31</i>	<b>ICGX</b> <i>03/31</i>	<b>ICIX</b> <i>03/31</i>	<b>MCLD</b> <i>03/31</i>	<b>NXLK</b> <i>03/31</i>	<b>Total</b>
<b>OPERATING DATA:</b>								
Markets in operation	32	5	14	21	17	227	26	342
Markets underdevelopment	3	3	3	0	10	100	10	129
Total Markets	35	8	17	21	27	327	36	471
Number of employees	834	670	1,167	3,130	3,329	4,500	1,499	15,129
Number of salespeople	218	89	287	166	530	na	181	1,471
PP&E, gross (mm)	\$337.4	\$352.1	\$472.3	\$904.5	\$1,120.7	\$395.5	\$352.0	\$3,934.4
Adjusted PP&E (a)	542.9	368.4	892.7	1,296.9	1,707.8	845.9	1,592.3	7,247.0
Adjusted PP&E per Market	15.5	46.1	52.5	61.8	63.3	2.6	44.2	285.9
<b>FIBER</b>								
Route Miles	1,314	2,525	3,289	3,194	na	4,908	2,036	17,266
Fiber Miles	112,086	145,350	137,764	118,074	na	219,864	141,788	874,926
Route Miles per Market	38	316	193	152	na	15	57	37
Route Miles per \$mm PP&E	3.9	7.2	7.0	3.5	na	12.4	5.8	4.4
<b>BUILDINGS</b>								
On-Network Buildings	na	na	553	637	na	na	571	nm
Off-network Buildings	na	na	1,589	3,294	na	na	5,947	nm
Total Buildings	1,912	631	2,142	3,931	4,071	na	6,518	19,205
Buildings per Market	55	79	126	187	151	na	181	nm
On-Net Builds. per Route Mile	na	na	0.17	0.20	na	na	0.28	nm
<b>SWITCHES</b>								
Voice Switches (b)	17	5	14	20	19	na	14	89
Data Switches	47	31	23	15	150	0	0	266
CO Collocations	133	23	66	35	50	366	69	742
Data nodes/ports in service	592	na	1,358	na	22,789	0	0	na
<b>ACCESS LINES</b>								
Total Access Lines in Service	57,633	41,270	44,846	186,156	220,587	313,900	72,834	937,226
Access Lines in Service, previous	35,105	34,328	28,853	141,035	81,349	282,600	50,131	653,401
1Q98 Net adds, total	22,528	6,942	15,993	45,121	139,238	31,300	22,703	283,825
1Q98 Net adds, acquisitions	0	0	0	0	111,612	0	1,811	113,423
Net adds, internal:								
1Q98	22,528	6,942	15,993	45,121	27,626	24,300	20,892	163,402
4Q97	14,967	10,328	15,132	42,228	30,609	20,800	19,187	153,251
3Q97	13,323	5,000	2,265	30,443	20,007	16,300	13,535	100,873
1Q98 Net adds/Lines in service	39.1%	16.8%	35.7%	24.2%	12.5%	16.3%	28.7%	17.4%
Access Lines per Customer	9	na	16	18	17	na	28	nm
On-net Lines per Local Voice Switch	848	8,006	2,809	4,950	4,928	na	6,224	3,873
Access Lines per Building	30	54	21	47	54	na	11	49
Est. On-net lines	14,408	40,032	39,330	99,000	64,064	na	68,464	325,298
Est. TSR lines	43,225	1,238	5,516	87,156	156,523	na	4,370	298,028
% On-net (c)	25%	97%	88%	53%	29%	na	94%	52%
% TSR	75%	3%	12%	47%	71%	na	6%	48%

# THE CLEC GRID

(US\$ in millions) fiscal year ended:	ESPI 12/31	ELIX 12/31	GSTX 12/31	ICGX 12/31	ICIX 12/31	MCLD 12/31	NXLK 12/31	Total
<b>PROJECTIONS:</b>								
<b>REVENUE(% change)</b>								
2000P	\$448 58%	\$241 59%	\$489 49%	\$1,000 32%	\$1,315 27%	\$1,115 28%	\$530 89%	\$5,137 39%
1999P	284 91%	152 62%	327 95%	760 41%	1,032 38%	870 45%	280 115%	3,704 53%
1998P	149 153%	94 53%	168 41%	540 98%	746 201%	600 141%	130 126%	2,426 127%
1997A	59 527%	61 99%	119 105%	273 43%	248 140%	249 206%	58 124%	1,067 114%
1996A	9 571%	31 95%	58 210%	191	103 168%	81 180%	26 238%	499
<b>EBITDA(% of sales)</b>								
2000P	\$92 21%	\$11 5%	\$82 17%	\$185 19%	\$330 25%	\$150 13%	(\$5) -1%	\$845 16%
1999P	24 8%	(24) -16%	1 0%	100 13%	188 18%	70 8%	(175) -63%	184 5%
1998P	(36) -24%	(43) -46%	(48) -29%	(20) -4%	57 8%	15 3%	(100) -77%	(176) -7%
1997A	(54) -91%	(23) -37%	(62) -52%	(124) -45%	(50) -20%	(32) -13%	(74) -128%	(418) -39%
1996A	(33) -348%	(22) -72%	(43) -74%	(50) -26%	(14) -14%	(17) -21%	(41) -158%	(220) -44%
<b>EV/REVENUE</b>								
2000P	3.8x	2.8x	2.7x	3.1x	3.3x	2.6x	4.6x	3.2x
1999P	6.1x	4.4x	4.1x	4.1x	4.2x	3.3x	8.7x	4.5x
1998P	11.6x	7.2x	7.9x	5.7x	5.9x	4.8x	18.7x	6.8x
1997A	29.2x	11.0x	11.2x	11.3x	17.7x	11.6x	42.2x	15.5x
1996A	183.3x	21.9x	22.9x	16.3x	42.4x	35.4x	94.5x	33.1x
<b>EV/EBITDA</b>								
2000P	18.6x	61.2x	16.3x	16.8x	13.3x	19.2x	-485.8x	19.6x
1999P	73.0x	-28.0x	1478.0x	31.0x	23.3x	41.2x	-13.9x	90.0x
1998P	-47.5x	-15.7x	-27.5x	-155.1x	76.9x	192.0x	-24.3x	-94.1x
1997A	-32.1x	-29.4x	-21.4x	-25.0x	-87.6x	-91.5x	-33.0x	-39.6x
EV/PP&E, gross	5.1x	1.9x	2.8x	3.4x	3.9x	7.3x	6.9x	4.2x
EV/Adjusted PP&E	3.2x	1.8x	1.5x	2.4x	2.6x	3.4x	1.5x	2.3x
EV per route mile	\$1,311,030	\$266,540	\$404,440	\$970,983	na	\$586,935	\$1,193,037	\$702,938
EV per building	\$900,990	\$1,066,583	\$621,009	\$788,939	\$1,076,443	na	\$372,664	\$710,151
EV per access line	\$29,891	\$16,308	\$29,662	\$16,660	\$19,866	\$9,177	\$33,350	\$17,626
EV per on-net access line	\$119,563	\$16,812	\$33,822	\$31,326	\$68,403	na	\$35,479	\$50,782
<b>LQA RATIOS:</b>								
LQA Revenue:	\$110	\$80	\$120	\$503	\$547	\$545	\$90	\$1,995
LQA Revenue per \$ PP&E (gross)	\$0.33	\$0.23	\$0.25	\$0.56	\$0.49	\$1.38	\$0.26	\$0.51
LQA Revenue per employee	\$131,746	\$120,000	\$102,828	\$160,583	\$164,374	\$121,156	\$60,096	\$131,891
EV/LQA revenues	15.7x	8.4x	11.1x	6.2x	8.0x	5.3x	27.0x	8.3x

**Footnotes to CLEC Grid****Notes:**

(a) Adjusted Gross PP&E equals PP&E plus 75% of cash balance.

(b) Includes local and long distance switches.

(c) Includes switched resale, UNE-L and full facilities based service provision.

ELIX: LD revenues included in Local revenue mix as the company does not break this out. The company does not track access lines per customer but will not sell to companies requiring fewer than 50 lines.

ESPI: Includes effects of the company's 3/31/98 secondary offering.

GSTX: Route and fiber miles includes those owned and leased by the company. Cities served has operational hub, switch or customer connect.

ICGX: Route and fiber miles do not include company's wireless infrastructure. Historical revenue and EBITDA figures do not include results of Netcom.

Assumes 48,000 access lines gained in acquisition of CBG.

ICIX: Numbers are pro forma for the acquisition of NTF. Debt figure includes \$450 Senior Note issue on 5/21/98 and \$417 million in capitalized leases from Williams Cos.

Access lines per switch calculated using 17 switches as two of the company's voice switches are long distance only.

NXLK: Figures include statistics from Las Vegas network in which the company holds a 40% stake. Voice switches does not include one installed in testing facility

Access lines per switch calculated using 11 switches as 2 are LD only and 1 is not used commercially.

MCLD: Access lines in service include 139,000 residential lines in service. Net adds are business CLEC lines. Local service revenue includes long distance as it is not broken out by the company.

Source: PaineWebber, company published data and consensus estimates.

Additional information is available upon request.

**Prices of companies mentioned as of 7/16/98:**

Ameritech AIT \$51 15/16  
AT&T<sup>1</sup> T \$57 11/16  
Bell Atlantic BEL \$45 13/16  
BellSouth BLS \$69 5/16  
British Telecommunications BTY \$135 7/8  
Cable & Wireless CWZ \$57  
Citizens Utilities CZN \$9 1/8  
e.spire ESPI \$22 9/16  
Electric Lightwave<sup>2</sup> ELIX \$12 7/16  
Fonorola<sup>3</sup>  
Frontier FRO \$35 9/16  
GST Telecommunications<sup>2</sup> GSTX \$15 1/16  
ICG Communications ICGX \$34 7/16  
IDT Corporation<sup>2</sup> IDTC \$27 3/4  
Intermedia Communications<sup>2</sup> ICIX \$37 3/4  
IXC Communications IIXC \$54 1/4  
Level 3 LVL \$81 1/8  
Lucent<sup>1</sup> LU \$100 5/8  
MCI Communications<sup>2</sup> MCIC \$65 13/16  
McLeod USA MCLD \$37 13/16  
Metromedia Fiber Network MFNX \$59 1/4  
NEXTLINK NXLK \$40  
Qwest Communications QWST \$44 5/8  
RCN<sup>3</sup> RCNC \$23  
SBC Communications SBC \$42 3/8  
Sprint FON \$74 11/16  
Teleport Communications Group TCGI \$54 1/8  
US West<sup>1</sup> USW \$54 1/16  
The Williams Company WMB \$34 1/4  
WinStar Communications<sup>2</sup> WCII \$37 3/16  
World Access WAXS \$26 1/2  
WorldCom<sup>2</sup> WCOM \$54 5/16

<sup>1</sup>PaineWebber Incorporated has acted in an investment banking capacity for this company.

<sup>2</sup>PaineWebber Incorporated makes a market in this security.

<sup>3</sup>These securities can only be offered in such states as may be legally permissible.

**Glossary of Terms:**

**Access Line**—A communications link (over copper, fiber or through wireless transmission) capable of delivering one voice call.

**Asynchronous transfer mode (ATM)**—A switching technology that uses cells of fixed length to transmit voice, data and video traffic over high-speed connections.

**Centrex**—Local dial-tone service offered to business customers where the provider manages the call features and functionality.

**Central office**—The furthest extent of a carrier's facilities that houses switching equipment and connects customers with the carrier network.

**Committed information rate (CIR)**—A term used in frame relay service to indicate the data rate guaranteed by the carrier at a customer site.

**Channel service unit/digital service unit (CSU/DSU)**—Interface device that connects a company's internal computing environment to digital telephone lines.

**Data node**—Equipment placed at a customer site that provides connectivity to a carrier network. The term is often used interchangeably with "data port" in determining the number of locations feeding traffic to a carrier's network.

**Digital link connection identifier (DLCI)**—A unique number (or address) assigned to a PVC endpoint in a frame relay network.

**Digital subscriber line (DSL)**—Technology that allows the transmission of megabit data rates over common copper wiring.

**Enterprise network**—Voice and data networks owned and operated by businesses.

**Ethernet**—A transmission protocol that defines how traffic is sent and received on local area networks.

**Frame relay**—A shared network data service offered by many local and long-distance carriers. Cheaper and more efficient than leased line private networks, frame relay is used to provide LAN connectivity to customers with remote locations and interconnect networked appliances such as ATM machines and credit card validations.

**Frame relay access device (FRAD)**—Equipment used to connect a company's internal computing environment to a carrier's frame relay network

**Incumbent local exchange carriers (ILECs)**—The Bell and independent telephone companies that sell local switched service and maintain the vast majority of market share of installed access lines.

**Internet protocol (IP)**—The language of the Internet.

**Internet service provider (ISP)**—A company established to provide connectivity between users and the Internet. Many ISPs have been acquired by CLECs.

**Inter-exchange carrier (IXC)**—A telecommunications carrier that provides transport across LATA boundaries (i.e. a long-distance carrier).

**Local access transport area (LATA)**—Areas established by the Modified Final Judgement that specify where Bell operating companies can transmit traffic. Inter-exchange carriers were authorized to carry traffic between LATAs (i.e., interLATA traffic) while the Bells were restricted to intraLATA calls.

**Local area network (LAN)**—Data networks used primarily by businesses to tie personal computers together and allow users to share scarce resources such as expensive peripherals and centralized databases.

**Local access transport area (LATA)**—A geographic region created in the Modified Final Judgement of 1984 that broke up the AT&T monopoly. The Bell companies are prevented from carrying local traffic across LATA boundaries.

**Operational support systems (OSS)**—The internal systems of a carrier that handle functions such as order tracking, line provisioning, trouble ticketing, billing and customer care.

**Private branch exchange (PBX)**—On-site telecommunications equipment employed by businesses to enable efficient intra- and inter-company calling while retaining control of the features and functionality of the service.

**Point of presence (POP)**—Location where data or voice traffic can enter a carrier network.

**Port speed**—A frame relay term that indicates the highest speed at which data from a user site will enter the frame relay network. Users choose the port speed when initiating service and can generally expect to experience data rates between the CIR and port speed.

**Private virtual circuit (PVC)**—A software delineated pathway within a shared network that specifies the route traffic will follow between endpoints.

**Regional Bell Operating Company (RBOC)**—One of seven holding companies established after the divestiture of AT&T's local assets. The recent mergers of Pacific Bell and SBC Communications and Bell Atlantic and NYNEX have reduced the number of existing RBOCs to five.

**Section 271**—Refers to the section of the Telecommunications Act of 1996 that specifies conditions under which the Regional Bell Operating Companies would be authorized to provide interLATA services in their home regions.

**Synchronous optical network (SONET)**—A North American standard for transporting high-speed digital information over fiber optic wires.

**T1 line**—A North American standard for communications at 1.544 megabits per second. Each T1 line has the capacity to carry 24 voice or data channels.

**Total service resale (TSR)**—The most basic form of local competition where a competing carrier resells the services of the incumbent carrier to its customers.

**Trunk line**—A communications line of varying capacity that connects two switches.

**Unbundled network elements (UNE)**—One of the seven aspects of the ILEC network that must be disaggregated and resold to competitors at wholesale rates.

**Virtual private networks (VPN)**—IP-based shared data network that generally relies on the Internet for transport. The term is often applied to other shared network services such as frame relay and ATM service.

**Voice over IP (VOIP)**—The use of IP packet technology to carry voice traffic, usually involving the Internet.

**Wide area network (WAN)**—A data network connecting users spread over a large geographic area.



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July 27, 1998

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# U.S. Investment Research

August 11, 1997

## Telecommunications Services

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### AT&T (T): Why in the World Do We Still Have A Strong Buy on AT&T?

**STRONG BUY**

52-Wk Price	Rng	Div	Yld	Sh Out (MM)	EPS 96A	EPS 97E	P/E	EPS 98E	P/E	CE 96A	CE 97E	P/CE	CE 98E	P/CE	5-Yr Est Growth
40	43 - 31	\$1.32	3.4%	1,627	\$3.47	\$2.68	14.6	\$2.83	13.8	\$5.17	\$5.15	7.6	\$5.50	7.1	16%

#### Summary and Investment Opinion

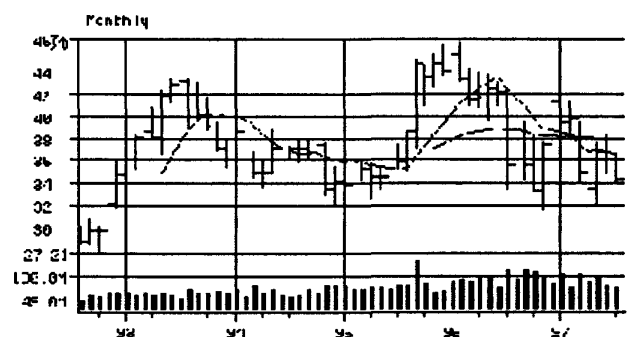
**Why in the world do we still have a Strong Buy rating on AT&T?** This question has resonated through the halls of MSDW and many of our clients recently, as one could not exactly describe the stock's performance in glowing terms. It strikes us that this is a particularly appropriate time to review the basic tenets of our recommendation to see if they still hold up.

Our conclusion is that they do for essentially the same fundamental reasons of a year ago. AT&T's strong brand, a stabilizing and fairly positive regulatory environment, and the prospect for AT&T to leverage its current customer base and marketing expertise into the local market all combined to support our positive outlook one year ago. We, of course, factored in the expectation that in its core business, AT&T would suffer further market share erosion. But, we thought the local exchange opportunity far outweighed this risk. So at the time, we projected an 8-10%

long-term growth rate for AT&T. All this for a stock trading at a 35-40% discount to the S&P 500.

**What went wrong in 1996?** First, throughout the second half of 1996 and the first quarter of 1997, it became evident that the AT&T long distance business (primarily on the

#### AT&T Stock Price Analysis



consumer side) was hurt more deeply than anticipated. Smaller competitors were attacking this market more successfully than we believed they would, causing a more rapid erosion of price and share for AT&T (and other large carriers) than originally reflected in our near-term estimates.

Second, the departure of Alex Mandl (President) and Joe Nacchio (Head of Consumer Markets) created what appeared to some observers to be a vacuum at the top of AT&T.

Third, it became clearer that entry into the local exchange business would take longer and be more costly than anyone believed. The incumbent local exchange companies still controlled the bottleneck facilities with little incentive other than the quid pro quo of entry into long distance (for the RBOCs) to make them available to the new competitors. The Court of Appeals stripped the FCC of the right to establish prices, and thus AT&T and other entrants had to and are still working through the more lengthy state-by-state processes. As these constraints became clearer, AT&T brought analysts' estimates down by \$1.00 per share for 1997 while affirming the attractiveness of the local exchange business in the intermediate term. Management projects \$5.00-6.00 per share in earnings in 2001, but it appears that few investors believe this level of earnings is achievable.

#### What Are the Near-Term Catalysts?

##### (1) The consumer long distance segment is turning around. Evidence includes the following:

- Volume growth has picked up for the first time in over eight quarters. Volumes grew about 4% in the consumer segment in 2Q97 compared with zero percent in the first quarter.
- The use of checks as a marketing tool is being phased out. In the second quarter, less than 30% of customer acquisition was achieved with checks, down from 60% late in 1996. We believe the company is well on its way to its goal of less than 20% of acquisitions by year-end.
- We think AT&T's targeted customer retention strategy is paying off. Out PICs (net customers leaving AT&T) were down 9% year to date versus growing at 20% in

previous quarters. In addition, AT&T's customer bill size on new customer acquisitions is up 20% from a year ago.

- The consumer long distance pricing environment has improved. Consumer market shares for second- and third-tier long distance providers have leveled off in recent quarters. We have seen a slowdown in top-line revenue growth at companies such as Excel and TELCO Communications, which primarily focus on the residential market.
- AT&T has some pricing flexibility in its arsenal. Specifically, access charge reductions in the second half of 1997 should allow AT&T to reduce its consumer pricing without sacrificing margin. AT&T will flow through access reductions in lower residential long distance prices. This should reduce real and perceived pricing differentials between AT&T and other carriers.

##### (2) The business long distance segment continues to be a bright spot for AT&T.

- Volumes have been and continue strong, in our view. Business revenues grew 4.1% in the second quarter on volume growth of nearly 15%. This revenue growth was fueled by strong data and network management services.
- Capacity constraints across the industry argue for firm pricing. The long distance industry has faced significant capacity issues over the past six months, fueled by huge expansion in the Internet and increased demand for data services. Recent pricing for large capacity circuits has actually been increasing. We expect, at a minimum, pricing can stay firm as capacity constraints remain an issue.
- Firming prices in the business segment translate into opportunity for margin expansion. We expect that AT&T has anticipated access price reductions in its business pricing. Thus, as access declines in 2H97, AT&T should benefit from improved gross margins in the business segment.
- RBOC entry into long distance presents less of a threat in the business customer segment. We expect it will be difficult for the RBOCs to compete with the big four long distance carriers for high-end business customers

demanding ubiquity, capacity and sophisticated solutions.

**(3) The \$9 billion capital budget has been trimmed by about \$1 billion.** And 1998 capital spending could be even lower. Management is taking a hard look at the capital requirements by business in the context of higher hurdle rates.

**(4) The company is achieving its cost reduction objectives.** The plan outlined in February calls for \$1 billion in cost takeouts in 1997 and a total of \$2.6 billion in cost reductions by the end of 1998. Even in the second quarter, signs of cost reduction were evident. Total SG&A in the quarter increased by only \$15 million year-over-year. Moreover, in the second half, we expect SG&A will be essentially flat with the second half of 1996. Given the expenses associated with new ventures, this suggests core long distance SG&A will be down year-over-year.

**In addition, we believe that the quality and magnitude of the long-term opportunity has not diminished.** In fact, the strategy, rules, and near-term impact to earnings are clearer now than they were a year ago.

**The brand is there.** While it has taken a beating, AT&T's brand continues to prove its resilience. For instance, in its brief local dial tone service marketing blitz in Sacramento, California, earlier this year, AT&T sold thousands of local dial tone lines per day. To date, AT&T has sold over 200,000 access lines (excluding Digital Link). And even after completely shutting down its marketing machine in California due to the lack of adequate provisioning, AT&T is still selling 200-300 lines per day. In addition, our customer survey work suggests that AT&T's brand is still a powerful one. According to our survey conducted five months ago, AT&T would take 42% share in a competitive market for local and long distance residential customers.

- **Success in the IntraLATA long distance market is a good indication of the prospect for success in the local business.** In the second quarter, intraLATA volumes were up 75% as AT&T focused on this opportunity to take share from the RBOCs. AT&T was successful in attracting the intraLATA product to its existing marketing efforts, thus providing a higher return on marketing dollars as well. We expect some similar

opportunities in the local business. Currently, AT&T is in six markets for consumer local dial tone services covering 26% of its long distance customer base. While AT&T is hitting some provisioning snafus, we believe intraLATA market success gives some visibility on the opportunity for AT&T to take share in local. We expect some local market revenue visibility by mid-1998.

- **While management at the very top is in some disarray, the next level is filled with what we consider very talented people.** Gail McGovern, Executive Vice President – Consumer Markets Division, Jeff Weitzen, Executive Vice President – Business Markets Division, Frank Ianna, EVP – Network and Computing Services, Senior Executive VP and CFO Dan Somers, and Vice Chairman John Zeglis know what they're doing, we believe, and are having an impact. However, this doesn't diminish the importance of installing a highly effective CEO.
- **Finally, the valuation looks compelling.** The stock is trading at 14 times projected earnings with strong confidence that the estimates for 1997 will be realized and that the estimates reflect significant (\$1.00 per share) dilution from businesses where AT&T should ultimately prosper — thus indicating a high long-term growth rate off the 1997E number (16% to be precise).

We have also assessed AT&T's valuation based on ten-year discounted cash flow analysis. The assumptions, we believe, are realistic, if not conservative. For instance, we assume that AT&T's long distance revenue market share diminishes to 42% over the next five years (from 54% currently), that AT&T takes 13% of the local market in five years, and that access as a percentage of revenue declines to just below 30%. Our discount rate of 13–14% and net income multiples of 13–15 applied to the terminal value are conservative and suggest a stock price of \$50 per share for year-end 1997.

Also, we note that every major long distance company has brought analysts' 1997 and 1998 earnings estimates way down due to the cost of getting into local exchange services. Only AT&T trades as though it will never get out of the pit. We disagree.

That's why in the world we still have a Strong Buy rating on AT&T.

Table 1

### AT&T – EPS Summary, 1995-99E

		1995 A	1996 A	1997 E	1998 E	1999 E
EPS Reported	5 Yr. (97-02)	\$3.29	\$3.47	\$2.68	\$2.83	\$3.31
EPS Growth	16.12%	0.0%	5.4%	-22.9%	5.8%	16.8%
EPS - PCS		\$0.00	\$0.00	(\$0.20)	(\$0.13)	(\$0.12)
EPS - Local		\$0.00	(\$0.20)	(\$0.38)	(\$0.39)	(\$0.38)
EPS - Solutions, On-Line & Intl		\$0.00	(\$0.43)	(\$0.42)	(\$0.41)	(\$0.28)
EPS Core		\$3.29	\$4.10	\$3.68	\$3.76	\$4.09
Core Growth	6.95%		24.6%	(10.3%)	2.1%	9.0%
Core Communications EBITDA		\$10,565	\$14,262	\$14,141	\$15,115	\$16,028
Multiple to Est. Firm Value (\$50)		7.65 x	5.67 x	5.72 x	5.35 x	5.04 x
Multiple to Market Firm Value		6.99 x	5.18 x	5.22 x	4.88 x	4.61 x
Total EBITDA		\$11,065	\$11,550	\$10,946	\$12,162	\$13,725
Multiple to Est. Firm Value (\$50)		7.31 x	7.00 x	7.39 x	6.65 x	5.89 x
Multiple to Market Firm Value		6.67 x	6.39 x	6.74 x	6.07 x	5.38 x

E = Morgan Stanley Dean Witter Research Estimates

Table 2

### Long-Distance Valuation Comparables

8/6/97

	Rating	Stock Price	Target Price	% Upside	Earnings Per Share			Price/Earnings			Relative Price/Earnings			5 Year Growth 1997-2002		
					1996	1997E	1998E	1996	1997E	1998E	1996	1997E	1998E	EPS	EPS	EBITDA
DOG																
AT&T	STRONG BUY	39.063	50	28%	\$3.47	\$2.68	\$2.83	11.26	14.60	13.80	48.5%	69.0%	69.5%	16.1%	12.1%	14.0%
MCI (I)	++	33.875	++	++	1.73	1.13	1.12	19.58	29.98	30.25	84.3%	141.6%	152.4%	++	++	++
Sprint	OUTPERFORM	49.188	50	2%	2.87	2.43	2.43	17.12	20.23	20.24	73.7%	95.6%	102.0%	19.1%	11.8%	10.4%
WorldCom	STRONG BUY	34.375	40	16%	(0.28)	0.38	0.84	NM	90.43	40.89	NM	427.3%	206.1%	62.4%	34.9%	33.8%
LCI Intl	OUTPERFORM	22.750	30	32%	0.79	1.03	1.39	28.80	22.16	16.31	124.0%	104.7%	82.2%	23.3%	22.9%	21.4%
US Long Dist	OUTPERFORM	16.063	20	25%	-0.05	0.38	0.59	NM	42.40	27.41	NM	200.4%	138.2%	40.1%	29.5%	32.9%
MDCOM	STRONG BUY	8.563	12	40%	(4.22)	(5.96)	(2.13)	NM	NM	NM	NM	NM	NM	NM	NM	NM

E = Morgan Stanley Dean Witter Research Estimates

I = Consensus estimates from First Call

++ Estimates for this company

have been removed from consideration in this report because under applicable law Morgan Stanley Dean Witter may be prohibited from issuing such information at this time.

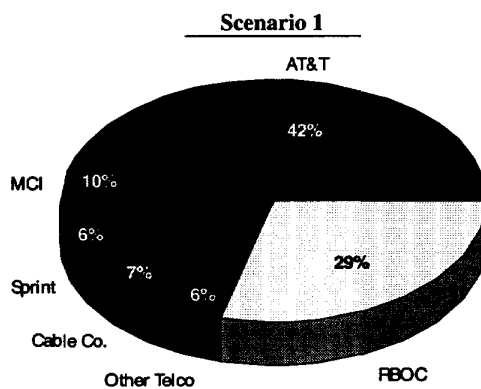
Table 3

**AT&T Key Assumptions**

<b>Key Assumptions</b>	<b>1997 E</b>	<b>2001 E</b>	<b>2005 E</b>
<b>Long Distance</b>			
Mkt Share Revenues	54.0%	42.0%	38.3%
Mkt Share Pre-Subscribed Lines	59.0%	47.0%	42.4%
Monthly LD Revenue per Sub	\$44.7	\$46.8	\$48.2
<b>Cellular</b>			
Mkt Share Subscribers	50.0%	52.0%	56.0%
Monthly Revenue per Sub	\$59.3	\$51.9	\$47.9
Cellular Penetration Rate (Market)	19.7%	25.2%	24.6%
<b>Core Comm. Exp. as a % of Revenue</b>			
Access (% of LD Rev Only)	35.7%	29.5%	27.2%
Network & Other	11.7%	11.0%	11.0%
SG&A	28.1%	26.3%	26.0%
<b>Core Communications</b>			
EBITDA (\$ millions)	14,141	18,250	20,725
Margin	27.6%	36.8%	38.9%
<b>Local</b>			
Mkt Share Subscribers	0.9%	13.0%	18.5%
Monthly Revenue per Sub	\$38.3	\$38.3	\$38.3
Gross Margin	-38.9%	33.4%	40.1%
<b>PCS</b>			
Mkt Share Subscribers	60.0%	45.0%	45.0%
Monthly Revenue per Sub	\$40.6	\$39.2	\$38.5
PCS Penetration Rate (Market)	0.9%	9.9%	19.1%
<b>Total Company</b>			
EBITDA (\$ millions)	10,946	19,122	25,865
Margin	20.3%	29.4%	31.5%
<b>Valuation</b>			
Discount Rate		13 - 14%	
Net Income Multiple		13 - 15x	

E = Morgan Stanley Dean Witter Research Estimates

Figure 1

**Morgan Stanley's 1996 Customer Preference Telecommunications Survey****Residential Market**

*E = Morgan Stanley Dean Witter Research Estimates*

Table 4

## AT&amp;T – Quarterly Model

	1995 A	1996					1997E				
		1qtr 96A	2qtr 96A	3qtr 96A	4qtr 96A	1996	1qtr 97 A	2qtr 97 A	3qtr 97E	4qtr 97E	1997 E
<b>Income Statement</b>											
<b>Revenues</b>											
Long Distance - Business	20,500	5,323	5,375	5,514	5,379	21,591	5,452	5,598	5,735	5,648	22,433
Long Distance - Consumer	24,300	6,119	6,034	6,225	6,272	24,650	6,057	5,984	6,057	6,103	24,201
Wireless	3,400	896	957	994	1,084	3,931	1,020	1,090	1,143	1,257	4,511
Core Communications Revenue	48,200	12,338	12,366	12,733	12,735	50,172	12,529	12,672	12,935	13,008	51,144
New Initiatives	1,400	325	358	407	479	1,569	459	524	750	1,007	2,740
Eliminations	-1,200	-293	-275	-308	-350	-1,226	-330	-374	-380	-400	-1,484
Total Communications Revenue	48,400	12,370	12,449	12,832	12,864	50,515	12,658	12,822	13,305	13,615	52,400
Financial Services	2,261	480	419	396	374	1,669	390	351	337	325	1,403
<b>Total Revenues</b>	50,661	12,850	12,868	13,228	13,238	52,184	13,048	13,173	13,641	13,940	53,803
Access & Other Interconnection Costs	17,618	4,168	3,852	4,086	4,226	16,332	4,252	4,237	4,080	4,066	16,635
Network & Other Costs	8,867	2,257	2,263	2,311	2,685	9,516	2,586	2,672	2,874	2,993	11,124
<b>Less: Total Direct Costs</b>	26,485	6,425	6,115	6,397	6,911	25,848	6,838	6,909	6,954	7,058	27,759
<b>Gross Margin</b>	24,176	6,425	6,753	6,831	6,327	26,336	6,210	6,264	6,688	6,882	26,044
SG&A	13,111	3,357	3,779	3,913	3,737	14,786	3,587	3,794	3,853	3,864	15,098
EBITDA - Financial Services	300	50	53	-35	-4	64	55	50	47	46	198
EBITDA - Communications	10,765	3,018	2,921	2,953	2,594	11,486	2,568	2,420	2,788	2,972	10,748
		24.5%	23.6%	23.2%	20.4%	22.9%	20.5%	19.1%	21.6%	22.8%	21.0%
<b>Total EBITDA</b>	11,065	3,068	2,974	2,918	2,590	11,550	2,623	2,470	2,835	3,018	10,946
	21.8%	23.9%	23.1%	22.1%	19.6%	22.1%	20.1%	18.8%	20.8%	21.6%	20.3%
<b>Total Depreciation &amp; Amort</b>	2,586	655	655	744	686	2,740	930	911	1,058	1,131	4,029
<b>Operating Income</b>	8,479	2,413	2,319	2,174	1,904	8,810	1,693	1,559	1,777	1,887	6,916
Other Income	280	105	102	83	100	390	170	57	65	60	352
Interest Expense	-478	-123	-97	-72	-42	-334	-49	-56	-60	-65	-230
<b>Total Non-Operating Expenses</b>	-198	-18	5	11	58	56	121	1	5	-5	122
<b>Pre-Tax Income</b>	8,281	2,395	2,324	2,185	1,962	8,866	1,814	1,560	1,782	1,882	7,038
<b>One Time Charges</b>	0	0	0	0	0	0	0	0	0	0	0
<b>Provision For Income Taxes</b>	38% \$3,043	\$926	\$786	\$826	\$720	\$3,258	\$689	\$601	\$677	\$715	\$2,682
<b>Net After-Tax Income</b>	\$5,238	\$1,470	\$1,538	\$1,359	\$1,242	\$5,609	\$1,125	\$959	\$1,105	\$1,167	\$4,356
<b>Average Shares Outstanding</b>	1,591	1,608	1,614	1,618	1,625	1,616	1,628	1,627	1,628	1,628	1,628
<b>EPS Reported</b>	\$3.29	\$0.91	\$0.95	\$0.84	\$0.76	\$3.47	\$0.69	\$0.59	\$0.68	\$0.72	\$2.68
EPS - PCS		0.00	0.00	0.00	0.00	0.00	-0.06	0.00	-0.05	-0.09	-0.20
EPS - Local		-0.04	-0.04	-0.06	-0.07	-0.20	-0.07	-0.07	-0.12	-0.12	-0.38
EPS - Solutions, On-Line & Intl		-0.07	-0.12	-0.11	-0.09	-0.39	-0.11	-0.16	-0.11	-0.04	-0.42
<b>EPS Core Businesses</b>	\$3.29	\$1.83	\$1.11	\$1.01	0.92	\$4.06	\$0.94	\$0.82	\$0.95	\$0.97	\$3.68
<b>Dividends</b>	50% \$2,100	\$531	\$533	\$534	\$536	\$2,133	\$537	\$537	\$537	\$537	\$2,149
<b>Additions to Retained Earnings</b>	\$3,138	\$939	\$1,005	\$825	\$706	\$3,475	\$588	\$422	\$568	\$630	\$2,207
EBDITDA/ Interest Expense	0.0					0.0					0.0
EBITDA Margin	21.25%	23.49%	22.70%	22.32%	19.60%	22.01%	19.68%	18.37%	20.44%	21.32%	19.98%
EBIT/Interest Expense	17.7	19.7	23.9	30.2	45.3	26.4	34.6	27.8	29.6	29.0	30.1
EBIT Margin	16.74%	18.78%	18.02%	16.43%	14.38%	16.88%	12.98%	11.83%	13.03%	13.54%	12.86%
Net Income Margin	10.34%	11.44%	11.95%	10.27%	9.38%	10.75%	8.62%	7.28%	8.10%	8.37%	8.10%

E = Morgan Stanley Dean Witter Research Estimates



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